# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**abhishektambe36@gmail.com**) was recorded on submission of this form.

Email *

abhishektambe36@gmail.com

Name *

Abhishek Tambe

Roll No *

1239

Class *

M.Sc I

Questions

All questions are compulsory.

*

2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ○ A
- ◉ B
- ○ C
- ○ D

*

2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

The identity element of the multiplicative group

$\left\{ \begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR, \; a \neq 0 \right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- (x) A
- ( ) B
- ( ) C
- ( ) D

*

2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

The group $S_n$ is not solvable for

a) $n \geq 3$
b) $n \geq 4$
c) $n \geq 5$
d) $n \geq 6$

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- (selected) A
- B
- C
- D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- A
- B
- (selected) C
- D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- [x] A
- [ ] B
- [ ] C
- [ ] D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii)Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ..........

a) 6
b) 7
c) 8
d) 9

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

The fundamental group of circles is.........

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- ( ) A
- (•) B
- ( ) C
- ( ) D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**sutarshivani1111@gmail.com**) was recorded on submission of this form.

Email *

sutarshivani1111@gmail.com

Name *

Shivani Anil Sutar

Roll No *

1237

Class *

M.Sc I

Questions

All questions are compulsory.

*

2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ○ A
- ○ B
- ○ C
- ◉ D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

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ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ○ A
- ◉ B
- ○ C
- ○ D

*

2 points

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a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

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a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- [x] A
- [ ] B
- [ ] C
- [ ] D

* 2 points

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- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- (selected) A
- B
- C
- D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- A
- B
- C
- (selected) D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
b) 7
c) 8
d) 9

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

The fundamental group of circles is………

a) Trivial
b) Non-abelian
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d) Finite cyclic

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- (•) A
- ( ) B
- ( ) C
- ( ) D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**kamblebhimrao1990@gmail.com**) was recorded on submission of this form.

Email *

kamblebhimrao1990@gmail.com

Name *

Manisha Bhimrao Kamble

Roll No *

1213

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in \mathbb{R},\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
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c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- [x] A
- [ ] B
- [ ] C
- [ ] D

* 2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Which of the following is possible for the class equation of group G?

a) $10 = 1+1+1+2+5$
b) $4 = 1+1+2$
c) $8 = 1+1+3+3$
d) $6 = 1+2+3$

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

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a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- [x] A
- [ ] B
- [ ] C
- [ ] D

*

2 points

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d) Both (i) and (ii) false

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

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b) Abelian
c) Non-abelian
d) Simple

- ( ) A
- ( ) B
- ( ) C
- (•) D

*

2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ..........

a) 6
b) 7
c) 8
d) 9

- ( ) A
- ( ) B
- ( ) C
- (•) D

*

2 points

The fundamental group of circles is.........

a) Trivial
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d) Finite cyclic

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

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a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- ○ A
- ◉ B
- ○ C
- ○ D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**sa9011171647@gmail.com**) was recorded on submission of this form.

Email *

sa9011171647@gmail.com

Name *

Shubham Tanaji Kamble

Roll No *

1215

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ○ A
- ○ B
- ○ C
- ◉ D

*

2 points

The identity element of the multiplicative group

$\left\{ \begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0 \right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- (x) A
- ( ) B
- ( ) C
- ( ) D

* 2 points

Consider the statements

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a) Only (i) true
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- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- [ ] A
- [ ] B
- [ ] C
- [x] D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- [ ] A
- [ ] B
- [x] C
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* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- [x] A
- [ ] B
- [ ] C
- [ ] D

* 2 points

Consider the statements

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d) Both (i) and (ii) false

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
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d) 8

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
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d) Simple

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ..........

a) 6
b) 7
c) 8
d) 9

- [ ] A
- [ ] B
- [ ] C
- [x] D

* 2 points

The fundamental group of circles is.........

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

Which of the following group is simple?

a) $D_3$
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c) $S_3$
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- [ ] A
- [x] B
- [ ] C
- [ ] D

*

2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- [x] A
- [ ] B
- [ ] C
- [ ] D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**sharayudurugale22@gmail.com**) was recorded on submission of this form.

Email *

sharayudurugale22@gmail.com

Name *

Sharayu Dinkar Durugale

Roll No *

1207

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- (selected) A
- B
- C
- D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- A
- B
- C
- (selected) D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Consider the statements

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ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
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- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Which of the following is possible for the class equation of group G?

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b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- [ ] A
- [ ] B
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- [x] D

* 2 points

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- [x] A
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* 2 points

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- A
- B
- (selected) C
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* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
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- ○ A
- ◉ B
- ○ C
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* 2 points

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- ○ A
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* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ..........

a) 6
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- ○ A
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* 2 points

The fundamental group of circles is.........

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- ○ A
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- ○ D

* 2 points

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- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- (•) A
- ( ) B
- ( ) C
- ( ) D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**shrutikhochage@gmail.com**) was recorded on submission of this form.

Email *

shrutikhochage@gmail.com

Name *

Shruti Khochage

Roll No *

1217

Class *

M.Sc I

Questions

All questions are compulsory.

*

2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
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- [ ] A
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- [ ] D

* 2 points

The group $S_n$ is not solvable for

a) n$\geq$ 3
b) n$\geq$ 4
c) n$\geq$ 5
d) n$\geq$ 6

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

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a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
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- [ ] A
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*

2 points

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- [x] A
- [ ] B
- [ ] C
- [ ] D

* 2 points

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a) Only (i) true
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- [ ] A
- [ ] B
- [x] C
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* 2 points

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* 2 points

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- (•) D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
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- (selected) A
- B
- C
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* 2 points

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- A
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* 2 points

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- ( ) A
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- ( ) D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- (•) A
- ( ) B
- ( ) C
- ( ) D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**ingaleaakanksha@gmail.com**) was recorded on submission of this form.

Email *

ingaleaakanksha@gmail.com

Name *

Aakanksha ingale

Roll No *

1209

Class *

M.Sc I

Questions

All questions are compulsory.

*

2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- A
- B
- C
- D

*

2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- A
- B
- C
- D

*

2 points

The identity element of the multiplicative group

$\left\{ \begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR, \ a \neq 0 \right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

The group $S_n$ is not solvable for

a) n$\geq$ 3
b) n$\geq$ 4
c) n$\geq$ 5
d) n$\geq$ 6

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (x) A
- ( ) B
- ( ) C
- ( ) D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- ( ) A
- ( ) B
- (x) C
- ( ) D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
b) 7
c) 8
d) 9

- (selected) A
- B
- C
- D

* 2 points

The fundamental group of circles is………

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- A
- B
- (selected) C
- D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- (•) A
- ( ) B
- ( ) C
- ( ) D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**pruthvirajpatil582@gmail.com**) was recorded on submission of this form.

Email *

pruthvirajpatil582@gmail.com

Name *

Pruthviraj vikas patil

Roll No *

1225

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ○ A
- ○ B
- ○ C
- ◉ D

*

2 points

The identity element of the multiplicative group

$\left\{ \begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR, \ a \neq 0 \right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- [x] A
- [ ] B
- [ ] C
- [ ] D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- [ ] A
- [x] B
- [ ] C
- [ ] D

*

2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- [ ] A
- [ ] B
- [ ] C
- [x] D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ..........

a) 6
b) 7
c) 8
d) 9

- (selected) A
- B
- C
- D

* 2 points

The fundamental group of circles is.........

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- A
- B
- (selected) C
- D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- (•) A
- ( ) B
- ( ) C
- ( ) D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**mrudulgoliwadekar@gmail.com**) was recorded on submission of this form.

Email *

mrudulgoliwadekar@gmail.com

Name *

Mrudula G. Goliwadekar

Roll No *

1208

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- A
- B
- C
- D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- A
- B
- C
- D

* 2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ( ) A
- ( ) B
- (•) C
- ( ) D

*

2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ◯ A
- ◯ B
- ◯ C
- ◉ D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ◯ A
- ◯ B
- ◉ C
- ◯ D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- [ ] A
- [x] B
- [ ] C
- [ ] D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- [ ] A
- [ ] B
- [ ] C
- [x] D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ..........

a) 6
b) 7
c) 8
d) 9

- (selected) A
- B
- C
- D

* 2 points

The fundamental group of circles is.........

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- A
- B
- (selected) C
- D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- (•) A
- ( ) B
- ( ) C
- ( ) D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**todakarshubhangi3437@gmail.com**) was recorded on submission of this form.

Email *

todakarshubhangi3437@gmail.com

Name *

Shubhangi shivaji todakar

Roll No *

1238

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ◯ A
- ◯ B
- ◉ C
- ◯ D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ◯ A
- ◯ B
- ◯ C
- ◉ D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

*

2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ○ A
- ◉ B
- ○ C
- ○ D

*

2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
b) 7
c) 8
d) 9

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

The fundamental group of circles is………

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ○ A
- ◉ B
- ○ C
- ○ D

*

2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- ◉ A
- ○ B
- ○ C
- ○ D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**sdpatil204@gmail.com**) was recorded on submission of this form.

Email *

sdpatil204@gmail.com

Name *

Sharad dhanaji patil

Roll No *

1227

Class *

M.Sc I

Questions

All questions are compulsory.

*

2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ○ A
- ○ B
- ○ C
- ◉ D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ \ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- A
- B
- C
- D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- [ ] A
- [ ] B
- [ ] C
- [x] D

*

2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- [x] A
- [ ] B
- [ ] C
- [ ] D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

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a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

*

2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ( ) A
- (•) B
- ( ) C
- ( ) D

*

2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

Number of elements of order 2 in $S_3 \times Z_4$ is ..........

a) 6
b) 7
c) 8
d) 9

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

The fundamental group of circles is.........

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- ( ) A
- ( ) B
- (•) C
- ( ) D

*

2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- [ ] A
- [x] B
- [ ] C
- [ ] D

*

2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- [x] A
- [ ] B
- [ ] C
- [ ] D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**nemishteruturaj@gmail.com**) was recorded on submission of this form.

Email *

nemishteruturaj@gmail.com

Name *

Ruturaj nemishte

Roll No *

1221

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ( ) A
- ( ) B
- ( ) C
- (•) D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- [ ] A
- [ ] B
- [ ] C
- [x] D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

*

2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ( ) A
- (•) B
- ( ) C
- ( ) D

*

2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ( ) A
- ( ) B
- ( ) C
- (•) D

*

2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
b) 7
c) 8
d) 9

- [ ] A
- [x] B
- [ ] C
- [ ] D

*

2 points

The fundamental group of circles is………

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- ◉ A
- ○ B
- ○ C
- ○ D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**manepratibha08@gmail.com**) was recorded on submission of this form.

Email *

manepratibha08@gmail.com

Name *

Pratibha Narayan Mane

Roll No *

1220

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ○ A
- ○ B
- ○ C
- ◉ D

*

2 points

The identity element of the multiplicative group

$\left\{ \begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0 \right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- [x] A
- [ ] B
- [ ] C
- [ ] D

*

2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- A
- B
- C
- D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- A
- B
- C
- D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ..........

a) 6
b) 7
c) 8
d) 9

- [ ] A
- [x] B
- [ ] C
- [ ] D

* 2 points

The fundamental group of circles is.........

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- [x] A
- [ ] B
- [ ] C
- [ ] D

*

2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ○ A
- ◉ B
- ○ C
- ○ D

*

2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- ◉ A
- ○ B
- ○ C
- ○ D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**sonalisankpal007@gmail.com**) was recorded on submission of this form.

Email *

sonalisankpal007@gmail.com

Name *

Sonali Sarjerao Sankpal

Roll No *

1233

Class *

M.Sc I

Questions

All questions are compulsory.

*

2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- [ ] A
- [ ] B
- [ ] C
- [x] D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in \mathbb{R},\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

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a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

*

2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ◯ A
- ◉ B
- ◯ C
- ◯ D

*

2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ◯ A
- ◯ B
- ◯ C
- ◉ D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
b) 7
c) 8
d) 9

- (selected) A
- B
- C
- D

* 2 points

The fundamental group of circles is………

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- A
- B
- (selected) C
- D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- [ ] A
- [x] B
- [ ] C
- [ ] D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- [x] A
- [ ] B
- [ ] C
- [ ] D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**asmitac9772@gmail.com**) was recorded on submission of this form.

Email *

asmitac9772@gmail.com

Name *

Asmita Adinath Chougule

Roll No *

1205

Class *

M.Sc I

Questions

All questions are compulsory.

*

2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- A
- B
- C
- D

*

2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- A
- B
- C
- D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- [ ] A
- [ ] B
- [ ] C
- [x] D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ○ A
- ○ B
- ○ C
- ◉ D

*

2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ◉ A
- ○ B
- ○ C
- ○ D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii)Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

*

2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- (selected) A
- B
- C
- D

*

2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- A
- B
- C
- (selected) D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ..........

a) 6
b) 7
c) 8
d) 9

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

The fundamental group of circles is.........

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- (•) A
- ( ) B
- ( ) C
- ( ) D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**shivani.kolekar.30@gmail.com**) was recorded on submission of this form.

Email *

shivani.kolekar.30@gmail.com

Name *

Kolekar Shivani Tanaji

Roll No *

1218

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- [ ] A
- [ ] B
- [ ] C
- [x] D

*

2 points

The identity element of the multiplicative group

$\left\{ \begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR, \ a \neq 0 \right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ( ) A
- ( ) B
- (•) C
- ( ) D

*

2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

The group $S_n$ is not solvable for

a) $n \geq 3$
b) $n \geq 4$
c) $n \geq 5$
d) $n \geq 6$

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ( ) A
- ( ) B
- ( ) C
- (•) D

*

2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

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a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

*

2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ( ) A
- (•) B
- ( ) C
- ( ) D

*

2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ( ) A
- ( ) B
- ( ) C
- (•) D

*

2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ..........

a) 6
b) 7
c) 8
d) 9

- (selected) A
- B
- C
- D

*

2 points

The fundamental group of circles is.........

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- A
- B
- (selected) C
- D

*

2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- [ ] A
- [x] B
- [ ] C
- [ ] D

*

2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- [x] A
- [ ] B
- [ ] C
- [ ] D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**shivaratnajamboni2014@gmail.com**) was recorded on submission of this form.

Email *

shivaratnajamboni2014@gmail.com

Name *

Shivaratna Jamboni

Roll No *

1211

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which |G|=343 and Z is center of G then

a) |Z|=3
b) |Z|=1
c) |Z|=7
d) |Z|=49

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- [ ] A
- [ ] B
- [ ] C
- [x] D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ \ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ( ) A
- ( ) B
- (•) C
- ( ) D

*

2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ( ) A
- ( ) B
- (•) C
- ( ) D

*

2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- [x] A
- [ ] B
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- [ ] D

*

2 points

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- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

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- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ..........

a) 6
b) 7
c) 8
d) 9

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

The fundamental group of circles is.........

a) Trivial
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d) Finite cyclic

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

Which of the following group is simple?

a) $D_3$
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c) $S_3$
d) Cyclic group of order 15

- [ ] A
- [x] B
- [ ] C
- [ ] D

*

2 points

The number of abelian groups of order 15 up to isomorphism is……

a) 1
b) 2
c) 3
d) 4

- [ ] A
- [x] B
- [ ] C
- [ ] D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**mrunali9399@gmali.com**) was recorded on submission of this form.

Email *

mrunali9399@gmali.com

Name *

Mrunali Solapure

Roll No *

1236

Class *

M.Sc I

Questions

All questions are compulsory.

*

2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
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d) $|Z|=49$

- ○ A
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- ○ C
- ○ D

*

2 points

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*

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b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ( ) A
- ( ) B
- ( ) C
- (•) D

*

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- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

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a) $n \geq 3$
b) $n \geq 4$
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d) $n \geq 6$

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

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- ○ A
- ○ B
- ○ C
- ◉ D

*

2 points

The group integers under addition has ........

a) Composition series
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- ◉ A
- ○ B
- ○ C
- ○ D

*

2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

*

2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
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d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

*

2 points

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a) 5
b) 6
c) 7
d) 8

- [x] A
- [ ] B
- [ ] C
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*

2 points

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a) Normal
b) Abelian
c) Non-abelian
d) Simple

- [ ] A
- [ ] B
- [ ] C
- [x] D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ..........

a) 6
b) 7
c) 8
d) 9

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

The fundamental group of circles is.........

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ○ A
- ◉ B
- ○ C
- ○ D

*

2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- ◉ A
- ○ B
- ○ C
- ○ D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**vidulapatil01999@gmail.com**) was recorded on submission of this form.

Email *

vidulapatil01999@gmail.com

Name *

Vidula Patil

Roll No *

1229

Class *

M.Sc I

Questions

All questions are compulsory.

*

2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ( ) A
- ( ) B
- (x) C
- ( ) D

*

2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ( ) A
- ( ) B
- ( ) C
- (x) D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- [x] A
- [ ] B
- [ ] C
- [ ] D

* 2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii)Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

*

2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ○ A
- ◉ B
- ○ C
- ○ D

*

2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

Number of elements of order 2 in $S_3 \times Z_4$ is ..........

a) 6
b) 7
c) 8
d) 9

- (selected) A
- B
- C
- D

* 2 points

The fundamental group of circles is.........

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- A
- B
- (selected) C
- D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- ○ A
- ○ B
- ○ C
- ◉ D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**vedukadam2000@gmail.com**) was recorded on submission of this form.

Email *

vedukadam2000@gmail.com

Name *

Vedika kadam

Roll No *

1212

Class *

M.Sc I

Questions

All questions are compulsory.

*

2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- A
- B
- C
- D

*

2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- A
- B
- C
- D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

The group $S_n$ is not solvable for

a) n$\geq$ 3
b) n$\geq$ 4
c) n$\geq$ 5
d) n$\geq$ 6

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- [ ] A
- [ ] B
- [ ] C
- [x] D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (●) A
- ( ) B
- ( ) C
- ( ) D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- ( ) A
- ( ) B
- (●) C
- ( ) D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
b) 7
c) 8
d) 9

- (selected) A
- B
- C
- D

* 2 points

The fundamental group of circles is………

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- A
- B
- (selected) C
- D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- (•) A
- ( ) B
- ( ) C
- ( ) D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**ssbate1999@gmail.com**) was recorded on submission of this form.

Email *

ssbate1999@gmail.com

Name *

Bate Sonali Shankar

Roll No *

1202

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

The group $S_n$ is not solvable for

a) $n \geq 3$
b) $n \geq 4$
c) $n \geq 5$
d) $n \geq 6$

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Which of the following is possible for the class equation of group G?

a) $10 = 1+1+1+2+5$
b) $4 = 1+1+2$
c) $8 = 1+1+3+3$
d) $6 = 1+2+3$

- [ ] A
- [ ] B
- [ ] C
- [x] D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- [x] A
- [ ] B
- [ ] C
- [ ] D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

*

2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- (x) A
- ( ) B
- ( ) C
- ( ) D

*

2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ( ) A
- ( ) B
- ( ) C
- (x) D

*

2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
b) 7
c) 8
d) 9

- [ ] A
- [x] B
- [ ] C
- [ ] D

*

2 points

The fundamental group of circles is………

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- ◉ A
- ○ B
- ○ C
- ○ D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**vipuldeokare24@gmail.com**) was recorded on submission of this form.

Email *

vipuldeokare24@gmail.com

Name *

Vipul Deokare

Roll No *

1206

Class *

M.Sc I

Questions

All questions are compulsory.

*

2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ( ) A
- ( ) B
- (•) C
- ( ) D

*

2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ( ) A
- ( ) B
- ( ) C
- (•) D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- A
- B
- C (selected)
- D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- [x] A
- [ ] B
- [ ] C
- [ ] D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
b) 7
c) 8
d) 9

- ○ A
- ○ B
- ○ C
- ● D

* 2 points

The fundamental group of circles is………

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- ○ A
- ○ B
- ● C
- ○ D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- ○ A
- ◉ B
- ○ C
- ○ D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**kajupatil9122@gmail.com**) was recorded on submission of this form.

Email *

kajupatil9122@gmail.com

Name *

Kajal Amar Patil

Roll No *

1224

Class *

M.Sc I

Questions

All questions are compulsory.

*

2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ○ A
- ◉ B
- ○ C
- ○ D

*

2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ○ A
- ○ B
- ○ C
- ◉ D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- (•) A
- ( ) B
- ( ) C
- ( ) D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii)Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- C
- (selected) D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- (selected) A
- B
- C
- D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- (selected) A
- B
- C
- D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
b) 7
c) 8
d) 9

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

The fundamental group of circles is………

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- [ ] A
- [x] B
- [ ] C
- [ ] D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- [x] A
- [ ] B
- [ ] C
- [ ] D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**satheankita1087@gmail.com**) was recorded on submission of this form.

Email *

satheankita1087@gmail.com

Name *

Ankita Mahipati Sathe

Roll No *

1234

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ○ A
- ○ B
- ○ C
- ◉ D

*

2 points

The identity element of the multiplicative group

$\left\{ \begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in \mathbb{R},\ a \neq 0 \right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- (x) A
- ( ) B
- ( ) C
- ( ) D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- [ ] A
- [ ] B
- [ ] C
- [x] D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- [ ] A
- [x] B
- [ ] C
- [ ] D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- [ ] A
- [ ] B
- [ ] C
- [x] D

*

2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ..........

a) 6
b) 7
c) 8
d) 9

- (selected) A
- B
- C
- D

*

2 points

The fundamental group of circles is.........

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- A
- B
- (selected) C
- D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- (•) A
- ( ) B
- ( ) C
- ( ) D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**abhijeetshelake15@gmail.com**) was recorded on submission of this form.

Email *

abhijeetshelake15@gmail.com

Name *

Abhijeet Bhagavan shelake

Roll No *

1235

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ( ) A
- ( ) B
- ( ) C
- (•) D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ( ) A
- ( ) B
- (•) C
- ( ) D

*

2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

The group $S_n$ is not solvable for

a) n$\geq$ 3
b) n$\geq$ 4
c) n$\geq$ 5
d) n$\geq$ 6

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ○ A
- ○ B
- ○ C
- ◉ D

*

2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

*

2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- [ ] A
- [x] B
- [ ] C
- [ ] D

*

2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- [ ] A
- [ ] B
- [ ] C
- [x] D

*

2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
b) 7
c) 8
d) 9

- ○ A
- ○ B
- ○ C
- ◉ D

*

2 points

The fundamental group of circles is………

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- [ ] A
- [x] B
- [ ] C
- [ ] D

*

2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- [ ] A
- [x] B
- [ ] C
- [ ] D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**rutujapatil2000.21@gmail.com**) was recorded on submission of this form.

Email *

rutujapatil2000.21@gmail.com

Name *

Rutuja  Tanaji Patil

Roll No *

1226

Class *

M.Sc I

Questions

All questions are compulsory.

*

2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

The group $S_n$ is not solvable for

a) n$\geq$ 3
b) n$\geq$ 4
c) n$\geq$ 5
d) n$\geq$ 6

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (x) A
- ( ) B
- ( ) C
- ( ) D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii)Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- ( ) A
- ( ) B
- (x) C
- ( ) D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ..........

a) 6
b) 7
c) 8
d) 9

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

The fundamental group of circles is.........

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- (•) A
- ( ) B
- ( ) C
- ( ) D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- (•) A
- ( ) B
- ( ) C
- ( ) D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**ashjadhav503@gmail.com**) was recorded on submission of this form.

Email *

ashjadhav503@gmail.com

Name *

Ashwini Ashok Jadhav

Roll No *

1210

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- [ ] A
- [ ] B
- [ ] C
- [x] D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

The group $S_n$ is not solvable for

a) $n \geq 3$
b) $n \geq 4$
c) $n \geq 5$
d) $n \geq 6$

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- [ ] A
- [ ] B
- [ ] C
- [x] D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (•) A
- ( ) B
- ( ) C
- ( ) D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii)Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- ( ) A
- ( ) B
- (•) C
- ( ) D

*

2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- [ ] A
- [x] B
- [ ] C
- [ ] D

*

2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- [ ] A
- [ ] B
- [ ] C
- [x] D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
b) 7
c) 8
d) 9

- (selected) A
- B
- C
- D

* 2 points

The fundamental group of circles is………

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- A
- B
- (selected) C
- D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- (•) A
- ( ) B
- ( ) C
- ( ) D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**digvijaykhatkar2017@gmail.com**) was recorded on submission of this form.

Email *

digvijaykhatkar2017@gmail.com

Name *

Digvijay Ashok Khatkar

Roll No *

1216

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which |G|=343 and Z is center of G then

a) |Z|=3
b) |Z|=1
c) |Z|=7
d) |Z|=49

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ( ) A
- ( ) B
- ( ) C
- (•) D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ \ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- [x] A
- [ ] B
- [ ] C
- [ ] D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- [ ] A
- [x] B
- [ ] C
- [ ] D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- [ ] A
- [ ] B
- [ ] C
- [x] D

*

2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is .........

a) 6
b) 7
c) 8
d) 9

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

The fundamental group of circles is........

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- ○ A
- ◉ B
- ○ C
- ○ D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**poonamregade7821@gmail.com**) was recorded on submission of this form.

Email *

poonamregade7821@gmail.com

Name *

Poonam Regade

Roll No *

1232

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ( ) A
- ( ) B
- ( ) C
- (•) D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- [x] A
- [ ] B
- [ ] C
- [ ] D

* 2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- (x) A
- ( ) B
- ( ) C
- ( ) D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ( ) A
- ( ) B
- (x) C
- ( ) D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ( ) A
- ( ) B
- ( ) C
- (•) D

*

2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
b) 7
c) 8
d) 9

- [x] A
- [ ] B
- [ ] C
- [ ] D

*

2 points

The fundamental group of circles is………

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- (•) A
- ( ) B
- ( ) C
- ( ) D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**vp373337@gmail.com**) was recorded on submission of this form.

Email *

vp373337@gmail.com

Name *

Vikas Maruti Patil

Roll No *

1230

Class *

M.Sc I

Questions

All questions are compulsory.

*

2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- A
- B
- C
- D

*

2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- A
- B
- C
- D

* 2 points

The identity element of the multiplicative group

$\left\{ \begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR, \; a \neq 0 \right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ( ) A
- ( ) B
- (•) C
- ( ) D

*

2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- ( ) A
- ( ) B
- (•) C
- ( ) D

*

2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii)Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ( ) A
- ( ) B
- ( ) C
- (•) D

*

2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
b) 7
c) 8
d) 9

- ( ) A
- (•) B
- ( ) C
- ( ) D

*

2 points

The fundamental group of circles is………

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- (•) A
- ( ) B
- ( ) C
- ( ) D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**revatipishte456@gmail.com**) was recorded on submission of this form.

Email *

revatipishte456@gmail.com

Name *

Revati shridhar pishte

Roll No *

1231

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ◯ A
- ◯ B
- ◉ C
- ◯ D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ◯ A
- ◯ B
- ◯ C
- ◉ D

*

2 points

The identity element of the multiplicative group

$\left\{ \begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in \mathbb{R},\ a \neq 0 \right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ◯ A
- ◯ B
- ◯ C
- ◉ D

*

2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

The group $S_n$ is not solvable for

a) $n \geq 3$
b) $n \geq 4$
c) $n \geq 5$
d) $n \geq 6$

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- [ ] A
- [ ] B
- [ ] C
- [x] D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- [ ] A
- [ ] B
- [ ] C
- [x] D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

*

2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ( ) A
- (•) B
- ( ) C
- ( ) D

*

2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
b) 7
c) 8
d) 9

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

The fundamental group of circles is………

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- (•) A
- ( ) B
- ( ) C
- ( ) D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- (•) A
- ( ) B
- ( ) C
- ( ) D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**sakshibhosale481999@gmail.com**) was recorded on submission of this form.

Email *

sakshibhosale481999@gmail.com

Name *

Sakshi Vijay bhosale

Roll No *

1203

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ( ) A
- ( ) B
- ( ) C
- (•) D

*

2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ \ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

The group $S_n$ is not solvable for

a) $n \geq 3$
b) $n \geq 4$
c) $n \geq 5$
d) $n \geq 6$

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- (•) A
- ( ) B
- ( ) C
- ( ) D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- [x] A
- [ ] B
- [ ] C
- [ ] D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ○ A
- ○ B
- ○ C
- ◉ D

*

2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ..........

a) 6
b) 7
c) 8
d) 9

- A
- B
- C
- D

*

2 points

The fundamental group of circles is.........

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- A
- B
- C
- D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- (•) A
- ( ) B
- ( ) C
- ( ) D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**autadepragati52@gmail.com**) was recorded on submission of this form.

Email *

autadepragati52@gmail.com

Name *

Pragati prabhakar autade

Roll No *

1201

Class *

M.Sc I

Questions

All questions are compulsory.

*

2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ○ A
- ○ B
- ○ C
- ◉ D

*

2 points

The identity element of the multiplicative group

$\left\{ \begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0 \right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- (x) A
- ( ) B
- ( ) C
- ( ) D

* 2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

The group $S_n$ is not solvable for

a) $n \geq 3$
b) $n \geq 4$
c) $n \geq 5$
d) $n \geq 6$

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- ( ) A
- ( ) B
- ( ) C
- (•) D

*

2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- ( ) A
- ( ) B
- (•) C
- ( ) D

*

2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

*

2 points

Consider the statements

i) Every abelian group is nilpotent

ii)Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

a) Normal
b) Abelian
c) Non-abelian
d) Simple

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
b) 7
c) 8
d) 9

- (selected) A
- B
- C
- D

* 2 points

The fundamental group of circles is………

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- A
- B
- (selected) C
- D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- ◉ A
- ○ B
- ○ C
- ○ D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**rajukamble1822@gmail.com**) was recorded on submission of this form.

Email *

rajukamble1822@gmail.com

Name *

Raju Vinod kamble

Roll No *

1214

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
b) $|Z|=1$
c) $|Z|=7$
d) $|Z|=49$

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Number of generators of cyclic group of order $7^2$ is .........

a) 62
b) 23
c) 42
d) 49

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

The identity element of the multiplicative group

$\left\{\begin{bmatrix} a & a \\ a & a \end{bmatrix} \mid a \in IR,\ a \neq 0\right\}$ is

a) $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$

b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- ( ) A
- (•) B
- ( ) C
- ( ) D

*

2 points

Consider the statements

i)Every abelian group is solvable

ii)The commutator subgroup $K'$ of any normal subgroup K of a group G is normal subgroup of G

a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) tales

- ○ A
- ○ B
- ◉ C
- ○ D

*

2 points

The group $S_n$ is not solvable for

a) n$\geq$ 3
b) n$\geq$ 4
c) n$\geq$ 5
d) n$\geq$ 6

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

Which of the following is possible for the class equation of group G?

a) 10 = 1+1+1+2+5
b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- (selected) A
- B
- C
- D

* 2 points

The group integers under addition has ........

a) Composition series
b) Normal subgroup
c) No composition series
d) No identity element.

- (selected) A
- B
- C
- D

* 2 points

Any two composition series of a group are........

a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (•) A
- ( ) B
- ( ) C
- ( ) D

* 2 points

Consider the statements

i) Every abelian group is nilpotent

ii) Every nilpotent group is solvable

a) Only (i) true
b) Only (ii) true
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d) Both (i) and (ii) false

- ( ) A
- ( ) B
- (•) C
- ( ) D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
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- ( ) A
- (•) B
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* 2 points

If M is maximal normal subgroup of G iff $\frac{G}{M}$ is ..........

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- ( ) A
- ( ) B
- ( ) C
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* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ..........

a) 6
b) 7
c) 8
d) 9

- ○ A
- ○ B
- ◉ C
- ○ D

* 2 points

The fundamental group of circles is.........

a) Trivial
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c) Infinite cyclic
d) Finite cyclic

- ○ A
- ○ B
- ○ C
- ◉ D

* 2 points

Which of the following group is simple?

a) $D_3$
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- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- ○ A
- ○ B
- ◉ C
- ○ D

# Internal Exam

Sem -1 Sub - Algebra

The respondent's email (**satheankita1087@gmail.com**) was recorded on submission of this form.

Email *

satheankita1087@gmail.com

Name *

Ankita Mahipati Sathe

Roll No *

1234

Class *

M.Sc I

Questions

All questions are compulsory.

* 2 points

If G is non abelian group for which $|G|=343$ and Z is center of G then

a) $|Z|=3$
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- A
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* 2 points

Number of generators of cyclic group of order $7^2$ is .........

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* 2 points

The identity element of the multiplicative group

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b) $\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

c) $\begin{pmatrix} 1/2 & 1/2 \\ 1/2 & 1/2 \end{pmatrix}$

d) Not exists

- (selected) A
- B
- C
- D

*

2 points

Consider the statements

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a) Only (i) true
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d) Both (i) and (ii) tales

- [ ] A
- [ ] B
- [x] C
- [ ] D

*

2 points

The group $S_n$ is not solvable for

a) n≥ 3
b) n≥ 4
c) n≥ 5
d) n≥ 6

- [ ] A
- [ ] B
- [x] C
- [ ] D

* 2 points

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b) 4 = 1+1+2
c) 8 = 1+1+3+3
d) 6 = 1+2+3

- [ ] A
- [ ] B
- [ ] C
- [x] D

* 2 points

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- [ ] B
- [x] C
- [ ] D

*

2 points

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a) Isomorphic
b) Isomorphic refinements
c) Non- isomorphic
d) Dose not have isomorphic refinements

- (selected) A
- B
- C
- D

*

2 points

Consider the statements

i) Every abelian group is nilpotent

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a) Only (i) true
b) Only (ii) true
c) Both (i) and (ii) true
d) Both (i) and (ii) false

- A
- B
- (selected) C
- D

* 2 points

What is the highest order of element in group $S_5$?

a) 5
b) 6
c) 7
d) 8

- ( ) A
- (•) B
- ( ) C
- ( ) D

* 2 points

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b) Abelian
c) Non-abelian
d) Simple

- ( ) A
- ( ) B
- ( ) C
- (•) D

* 2 points

Number of elements of order 2 in $S_3$ x $Z_4$ is ……….

a) 6
b) 7
c) 8
d) 9

- (selected) A
- B
- C
- D

* 2 points

The fundamental group of circles is………

a) Trivial
b) Non-abelian
c) Infinite cyclic
d) Finite cyclic

- A
- B
- (selected) C
- D

* 2 points

Which of the following group is simple?

a) $D_3$
b) Icosahedral group
c) $S_3$
d) Cyclic group of order 15

- ○ A
- ◉ B
- ○ C
- ○ D

* 2 points

The number of abelian groups of order 15 up to isomorphism is......

a) 1
b) 2
c) 3
d) 4

- ◉ A
- ○ B
- ○ C
- ○ D