Total Marks: 20 Time: 60 min

## **Instructions:**

1. Answer all the questions.

Name: Roll number:

**1.** Chose the correct IUPAC name for the given compound.

(3 marks)

a) 2-chloro 4-methyl 2,5-heptadienol

b) 4-chloro 4-methyl 3,3'-heptadienal

c) 6-chloro 4-methyl 2,5-heptadienal

d) 2-chloro 4-methyl 2,5-heptadienal

**2.** Chose the correct IUPAC name for the given compound.

(3 marks)

a) 5-isopropyl-4-vinylbenzoic acid

b) 3-isopropyl-4-vinylbenzoic acid

c) 4-isopropyl-5-vinylbenzoic acid

d) A & B

**3.** Chose the correct IUPAC name for the given compound.

(3 marks)

a) 2-Methyl spiro [5.4] dec-1-ene

b) 2-Methyl spiro [4.5] dec-1-ene

c) 3-Methyl spiro [4.5] dec-2-ene

d) 3-Methyl spiro [5.4] dec-2-ene

## **4.** Chose the correct IUPAC name for the given compound.

(3 marks)

- a) (E, Z)-6-bromo-4-methyl-3-nitrohept-2-enoic acid & ethyl (E, Z)-3-amino-6-bromo-4-methylhept-2-enoate
- b) (Z, E)-6-bromo-4-methyl-3-nitrohept-2-enoic acid & ethyl (Z, E)-3-amino-6-bromo-4-methylhept-2-enoate
- c) (E)-6-bromo-4-methyl-3-nitrohept-2-enoic acid & ethyl (E)-3-amino-6-bromo-4-methylhept-2-enoate
- d) (Z)-6-bromo-4-methyl-3-nitrohept-2-enoic acid & ethyl (Z)-3-amino-6-bromo-4-methylhept-2-enoate

## **5.** What is the correct product for the following given reaction.

(2 marks)

a.

c.

b.

d.

**6.** What is the stability order for the given carbocation.

(2 marks)

a) 1>3>2

b) 1>2>3

c) 3>1>2

- d) 3>2>1
- **7.** What is the stability order for the given carbocation.

(2 marks)

A) 1>2>3>4

B) 1>3>2>4

C) 3>1>2>4

- D) 3>2>1>4
- 8) The shape of carbocation and carbanion is?

(2 marks)

- a) Pyramidal and Trigonal planar
- b) Trigonal planar and Pyramidal
- c) Trigonal planar and Tetrahedral
- d) Pyramidal and Tetrahedral