

21. Alkyl halides are considered to be very reactive compounds towards nucleophile because

- A. they have an electrophilic carbon
- B. they have an electrophilic carbon & a good leaving group
- C. they have an electrophilic carbon & a bad leaving group
- D. they have a nucleophilic carbon & a good leaving group

Answer: Option B

22. Which one of the following species is not an electrophile?

- A. NH₃
- B. Br⁺
- C. H⁺
- D. BF₃

Answer: Option A

23. Which one of the following reactants will be required to form straight chain alcohol by using Grignard reagent

- A. formaldehyde
- B. ketone
- C. ethylene epoxide
- D. both a & c

Answer: Option D

24. Which one of the following alcohols will be formed when ethyl magnesium bromide reacts with acetone?

- A. primary alcohol
- B. secondary alcohol
- C. tertiary alcohol
- D. dihydric alcohol

Answer: Option C

25. Which one of the following molecules does not form alcohol when reacts with Grignard reagent?

- A. formaldehyde
- B. acetaldehyde
- C. propanone
- D. carbondioxide

Answer: Option D

26. In primary alkyl halides the halogen atom is attached to a carbon which is further attached to how many carbon atoms

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|---------------|-----------------|
| <u>A.</u> two | <u>B.</u> three |
| <u>C.</u> one | <u>D.</u> four |

Answer: Option C

27. Ethylene epoxide treated with Grignards reagent followed by acid hydrolysis yield

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|----------------------------|-----------------------------|
| <u>A.</u> primary alcohol | <u>B.</u> secondary alcohol |
| <u>C.</u> tertiary alcohol | <u>D.</u> dihydric alcohol |

Answer: Option A

28. The best method of preparation of alkyl halides is a reaction of alcohol with

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| <u>A.</u> Zn / HCl | <u>B.</u> SOCl ₂ / Pyridine |
| <u>C.</u> PCI ₃ | <u>D.</u> PCI ₅ |

Answer: Option B

29. Alkyl halides undergo a type of reaction

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|-------------------------------------|---------------------------------|
| <u>A.</u> Nucleophilic substitution | <u>B.</u> Nucleophilic addition |
| <u>C.</u> Elimination | <u>D.</u> both a & c |

Answer: Option D

30. 50% inversion of configuration of molecules take place in a

- A. E1 - reaction
- C. SN1 - reaction

- B. E2 - reaction
- D. SN2 - reaction

Answer: Option **c**