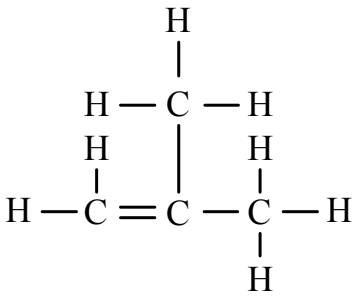
BAB 2: SEBATIAN KARBON
CARBON COMPOUND

OBJEKTIF
OBJECTIVES

1 Propena boleh ditukar kepada propanol melalui proses
Propene can be change to propanol by the process of

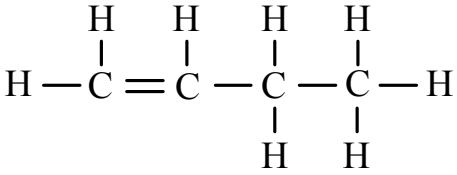
A Oxidation *Pengoksidaan* **B** Hydration *Penghidratan* **C** Fermentation *Penapaian* **D** Hydrogenation *Penghidrogenan*

2 Rajah di bawah menunjukkan formula struktur bagi suatu hidrokarbon tak tepu Q.
Diagram below shows the structural formula of an unsaturated hydrocarbon Q.

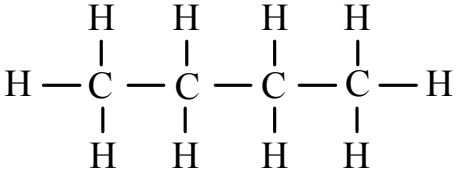


Antara berikut, yang manakah merupakan isomer bagi hidrokarbon Q?
Which of the following is the isomer of hydrocarbon Q?

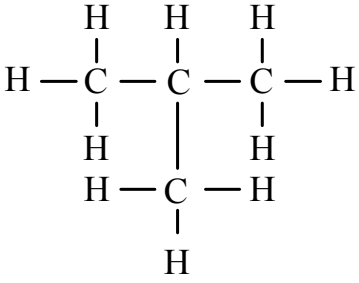
A



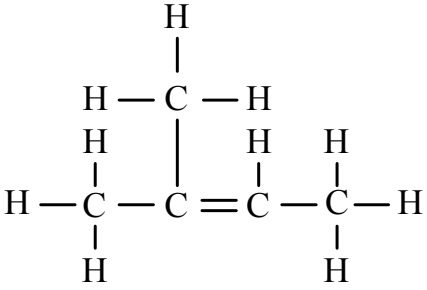
C



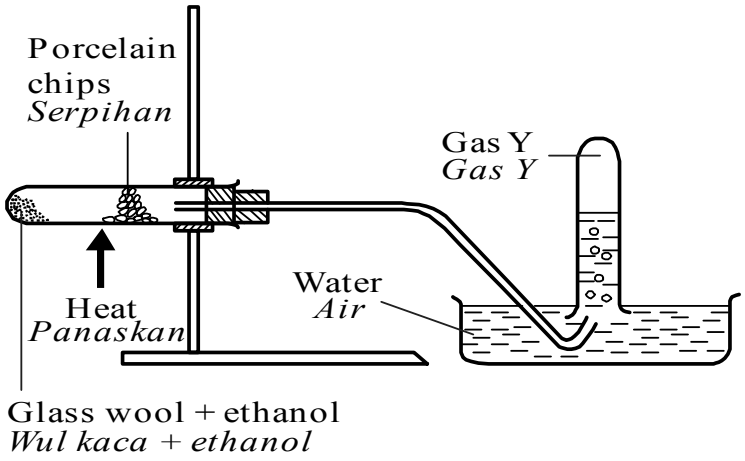
B



D



3 Rajah menunjukkan susunan radas dalam penyediaan gas Y
The diagram shows the apparatus set-up in preparing gas Y.



Apakah gas Y? *What is gas Y?*

A Etana *Ethane*
B Etena *Ethene*
C *Metana* *Methane*
D Karbon dioksida *Carbon dioxide*

4 *Persamaan berikut mewakili tindak balas penyediaan etanol secara industri.*
The following equation represents a reaction for industrial preparation of propanol

$$P + H_2O \xrightarrow[\text{Mangkin X,/Catalyst X, } 300^0 \text{ C / 60 } atm]{} CH_3CH_2CH_2OH$$

What is P and catalyst X?
Apakah P dan mangkin X?

	P	Catalyst X/*Mangkin X*
A	C_2H_4	Platinum/ *Platinum*
B	C_3H_6	Nickel /*Nikel*
C	C_2H_4	Asid sulfurik/ *Sulphuric acid*
D	C_3H_6	Asid fosforik /*Phosphoric acid*

5 Apakah kumpulan berfungsi bagi suatu alkohol?
What is the functional group of an alcohol?

A -OH **B** C=C **C** -COO- **D** COOH

6 Persamaan berikut menunjukkan pembakaran lengkap etanol untuk menghasilkan gas X dan sebatian R. Apakah nama gas X dan sebatian R?
The following equation shows a complete combustion of ethanol to form gas X and compound R. What is the name of gas X and compound R?

$$C_2H_5OH + 3O_2 \rightarrow 2X + 3R$$

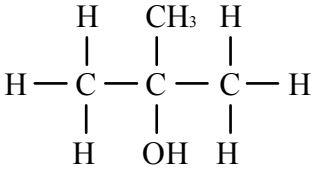
A Nitrogen dan air
Nitrogen and water

B Karbon dioksida dan air
Carbon dioxide and water

C Karbon monoksida dan nitrogen
Carbon monoxide and nitrogen

D Hidrogen dan karbon dioksida
Hydrogen and carbon dioxide

7 Rajah di bawah menunjukkan formula struktur bagi satu sebatian organik.
The diagram below show the structural formula of an organic compound.



Apakah nama sebatian organik itu?
What is the name of the organic compound?

A Butan-2-ol
Butan-2-ol

B 2-etilpropan-1-ol
2-ethylpropan-1-ol

C *2-metilbutan-2-ol*
2-methylbutan-2-ol

D 2-metilpropan-2-ol
2-methylpropan-2-ol

8 Etanol digunakan sebagai pelarut di dalam penyediaan ubat batuk. Antara berikut yang manakah siri homolog bagi etanol?
Ethanol is used as a solvent in the preparation of cough syrup. Which of the following is the homologous series of ethanol?

A Alkana / Alkane
B *Alkena/* Alkene
C Alkohol / *Alcohol*
D Asid karbosilik / *Carboxylic acid*

9 Persamaan berikut mewakili proses penapaian.
The equation represents fermentation process.

$$P \xrightarrow[Yis]{\text{Yeast}} \text{ethanol} + Y$$
etanol

Apakah P dan Y?
What is P and Y?

	Bahan yang ditapai *Substances fermented*	Gas yang dibebaskan semasa penapaian *Gas evolved during fermentation*
A	Glukosa / *Glucose*	Gas karbon dioksida / *Carbon dioxide gas*
B	Hidrokarbon / *Hydrocarbons*	Gas oksigen / *Oxygen gas*
C	Glukosa / *Glucose*	Gas oksigen / *Oxygen gas*
D	Hidrokarbon / *Hydrocarbons*	Gas karbon dioksida / *Carbon dioxide gas*

10 Ester yang berformula $C_3H_7COOCH_3$ boleh dihasilkan daripada tindak balas antara
An ester which has the formula $C_3H_7COOCH_3$ can be produced from the reaction between

A C_2H_5OH and CH_3COOH
B C_2H_5OH and $HCOOCH_3$
C CH_3OH and C_3H_7COOH
D CH_3OH and $HCOOC_2H_5$