

1. Nyatakan istilah yang betul dengan maksudnya. (TP 2)  
State the correct terms with their meaning.

Istilah / Term	Maksud / Meaning
(a)	Campuran dua atau lebih zat terlarut, tidak jernih dan tidak mempunyai mendakan. <i>A mixture of two or more solutes, not clear and do not have sediments.</i>
(b)	Bahan yang boleh melarut di dalam air. <i>A substance that can dissolve in a liquid.</i>
(c)	Campuran keruh yang mengandungi zat terlarut yang tidak larut. <i>A cloudy mixture that has solutes that are not dissolved.</i>
(d)	Cecair yang boleh melarutkan bahan. <i>A liquid that can dissolve a substance.</i>
(e)	Mempunyai kuantiti zat terlarut yang berlebihan di dalam pelarut. <i>Has excessive solute in solvent.</i>
(f)	Campuran yang terhasil apabila zat terlarut melarut di dalam pelarut. <i>A mixture that is formed when a solute dissolve in a solvent.</i>
(g)	Mempunyai kuantiti zat pelarut yang banyak di dalam pelarut. <i>Has a high quantity of solute in solvent.</i>
(h)	Mempunyai zat terlarut yang sedikit di dalam pelarut. <i>Has only a little solute in solvent.</i>

TP2 Menguasai Belum menguasai

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2. Berikan dua contoh bagi setiap yang berikut. (TP 3)  
Give two examples for each of the following.

(a) Larutan / Solution:

(b) Ampaian / Suspension:

(c) Koloid / Colloids:

3. Takrifkan maksud (TP 2)  
Define the meaning of

(a) Keterlarutan / Solubility:

The  quantity of solute that can dissolve in  solvent at a certain

(b) Kadar keterlarutan / Rate of dissolving:

of  can dissolve in a given amount of

solvent

Rate

solute

4. Nyatakan tiga faktor yang mempengaruhi kadar keterlarutan. **TP 1**  
 State three factors affecting the rate of dissolving.

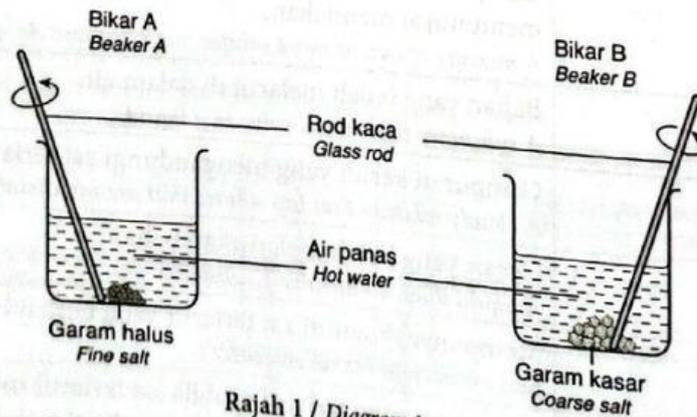
- [ ] of solute particle
- [ ] of solvent
- [ ] of stirring

Temperature

Rate

Size

5. Aminah menjalankan penyiasatan untuk mengetahui sama ada garam halus atau garam kasar lebih cepat larut di dalam air panas seperti dalam Rajah 1.  
 Aminah is carrying out an experiment to see whether fine salt or coarse salt dissolves faster in hot water as shown in Diagram 1.



Rajah 1 / Diagram 1

(a) Kenal pasti zat terlarut dan pelarut dalam rajah di atas. **TP 2**  
 Identify the solute and solvent in the diagram above.

(i) Zat terlarut / Solute:

(ii) Pelarut / Solvent:

(b) Apakah pemboleh ubah yang perlu dimalarkan dalam eksperimen ini? **TP 2**  
 What are the variables that must be kept constant in this experiment.

- [ ] of solute
- [ ] of water
- [ ] of stirring

Rate Mass

Temperature

Amount

(c) Pada pendapat anda, garam yang manakah akan lebih cepat terlarut? Terangkan. **TP 5**  
 In your opinion, which type of salt will dissolve faster? Explain.

**KBAT** Menilai

[ ] salt. The [ ] the size of the solute, the [ ] the surface of area exposed to the [ ] particles. This allows the [ ] to quickly dissolve.

Fine smaller larger solvent solute

(d) Jelaskan apa yang terjadi kepada zarah-zarah air dan garam dalam suhu tinggi. **TP 4**  
*Explain what happen to the particles of the water and the salt in high temperature.*

**KBAT** Menganalisis

spaces

water

salt

The [ ] particles move faster. This causes water particles and [ ] particles filling up the [ ] between them faster.

**Air sebagai Pelarut Semesta**  
*Water as Universal Solvent*

6. Senaraikan contoh-contoh penggunaan air sebagai pelarut semesta. **TP 2**  
*List the examples of water as universal solvent.*

- Water dissolves [ ] to enable it to be absorbed by the plant
- Water dissolves [ ] to allow aquatic organism to use oxygen for respiration.
- Water dissolves the [ ] in food and beverages
- Water dissolves [ ] for cleaning process.
- water dissolves acids and alkalis for [ ] usage.

substances

pharmaceutical

oxygen

fertiliser

detergent

**Pelarut Bukan Air**  
*Organic Solvent*

7. Lengkapi tempat kosong berikut berkenaan penggunaan pelarut bukan air. **11**

*Complete the blank spaces regarding the usage of organic solvent.*

**Penggunaan**  
**pelarut bukan air**  
*Organic solvent*

(a) Alcohol	(i)	
	(ii)	
(b) Kerosene	(i)	
	(ii)	
(c) Acetone	(i)	
	(ii)	
(d) Turpentine	(i)	
	(ii)	
(e) Ether	(i)	
	(ii)	