Practice Question Set For A-Level
Subject : Chemistry
Paper-2 Topic: Polymers

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Exam Preparation and Free Resources

Name of the Student:_____
Max. Marks : 20 Marks **Time : 20 Minutes**

Mark Schemes

Q1.

(a) (i) (As a) soap

Allow washing, cleaning, degreasing, detergents

1

(ii) (Bio)diesel or biofuel or fuel for cars/lorries

Allow to make soap

1

(iii) (Cationic) surfactant /detergent /fabric softener /germicide / shampoos / (hair) conditioners /spermicidal jelly

Allow cleaning

1

(b) (i) (Poly)ester

1

Terylene ***OR*** PET

Allow polyester

1

(ii) (Poly)amide

1

Kevlar ***OR*** nylons

Ignore numbers with nylons Allow polyamide(e)

1

(iii) (Independent marks)

CE = 0

Hydrogen bonding in b(ii)

1

Imfs in (b)(ii) are stronger

OR

H bonding stronger than dipole–dipole/van der Waals/ dispersion/London forces in b(i)

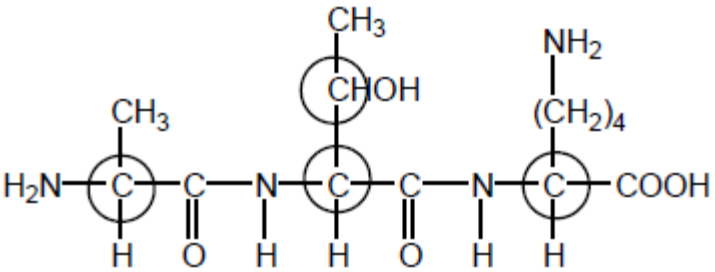
1

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Q2.

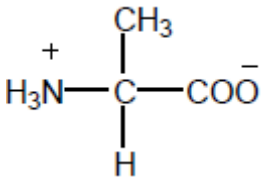
(a) (i)



These four only

1

(ii)



Allow − NH_3^+ and $^+NH_3^-$

1

(iii) 2-amino-3-hydroxybutanoic acid

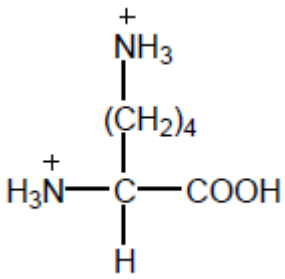
Ignore 1 in butan-1-oic acid

Do not penalise commas or missing hyphens

Penalise other numbers

1

(iv)



Allow –NH_3^+ and $^+NH_3^-$

1

(b) (i) Condensation

Allow polyester

1

(ii) propan**e**-1,3-diol

Must have e

*Allow 1,3-propan**e**diol*

1

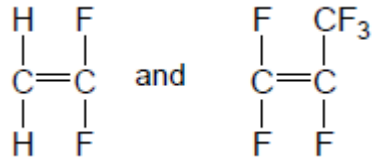
(c) (i) Addition

Not additional

1

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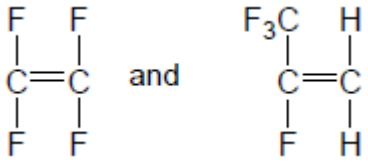
(ii)



Allow monomers drawn either way round
Allow bond to F in CF_3

1

OR



1 for each structure within each pair

1

(d) c

If wrong, CE = 0

1

C-C or C-F bonds too strong

1

[11]

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