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

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Name of the Student:_____
Max. Marks : 16 Marks **Time : 16 Minutes**

Mark Schemes

Q1.

(a) **J** (acid) amide

not peptide, not N-substituted amide

1

K (secondary) amine or amino

penalise primary or tertiary
allow N-substituted amine

1

(b) (δ =) 3.1-3.9

1

doublet **OR** duplet

Not 3.7 – 4.1

Not secondary
name required not the number 2

1

(c) (i) Solvent must be proton-free

OR $CHCl_3$ has protons or has H or gives a peak

1

(ii) $CDCl_3$ is polar **OR** CCl_4 is non-polar

1

(d) 11 **OR** eleven

1

(e) (i) $Si(CH_3)_4$ **OR** SiC_4H_{12}

ignore TMS

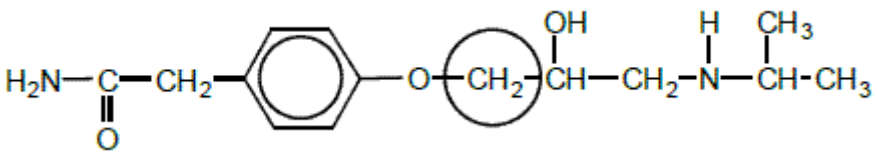
1

(ii) a single number or a range within 21-25

penalise anything outside this range

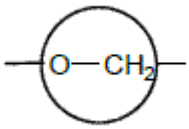
1

(iii)



allow ring around the C only and also allow

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1

(f) (i) $NaBH_4$

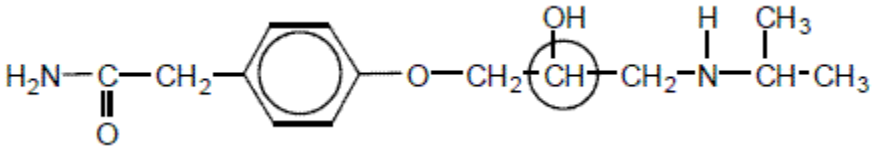
ignore name if formula correct

ignore solvent

allow $LiAlH_4$ Zn/HCl Sn/HCl H_2/Ni H_2/Pt

1

(ii)



allow ring around the C only

1

(iii) (plane) polarised light **OR** light in a polarimeter

1

polarised light is not rotated or is unaffected

penalise bent/diffracted/deflected/reflected

Not just solution is optically inactive

1

(iv) **adv** cheaper medicine due to cost or difficulty <u>of separation</u> or both can lower blood pressure

OR more effective/beneficial <u>with a reason</u>

or no need to separate

1

disadv may be side effects from one enantiomer in the mixture or only half the product works or one enantiomer may be ineffective or double dose required

1

[16]

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