Modified Enlarged 18pt

OXFORD CAMBRIDGE AND RSA EXAMINATIONS

Monday 18 January 2021 – Morning

Level 3 Cambridge Technical in Applied Science

05848/05849/05874

Unit 3: Scientific analysis and reporting

Time allowed: 2 hours plus your additional time allowance

Insert

Please write clearly in black ink.

Centre number					
Candidate number					

First name(s) _____

Last name _____

Date of birth	D	D	M	M	Y	Y	Y	Y

FIG. 1.5

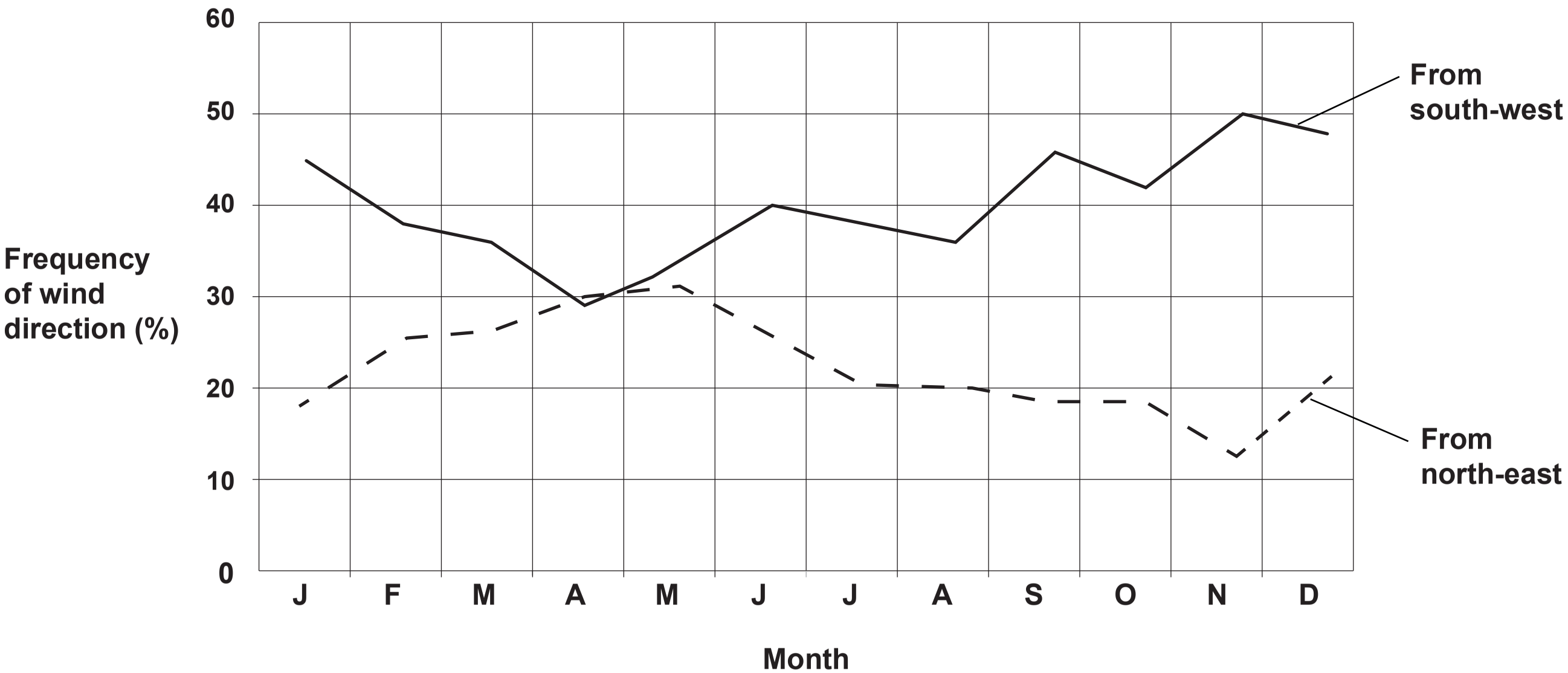
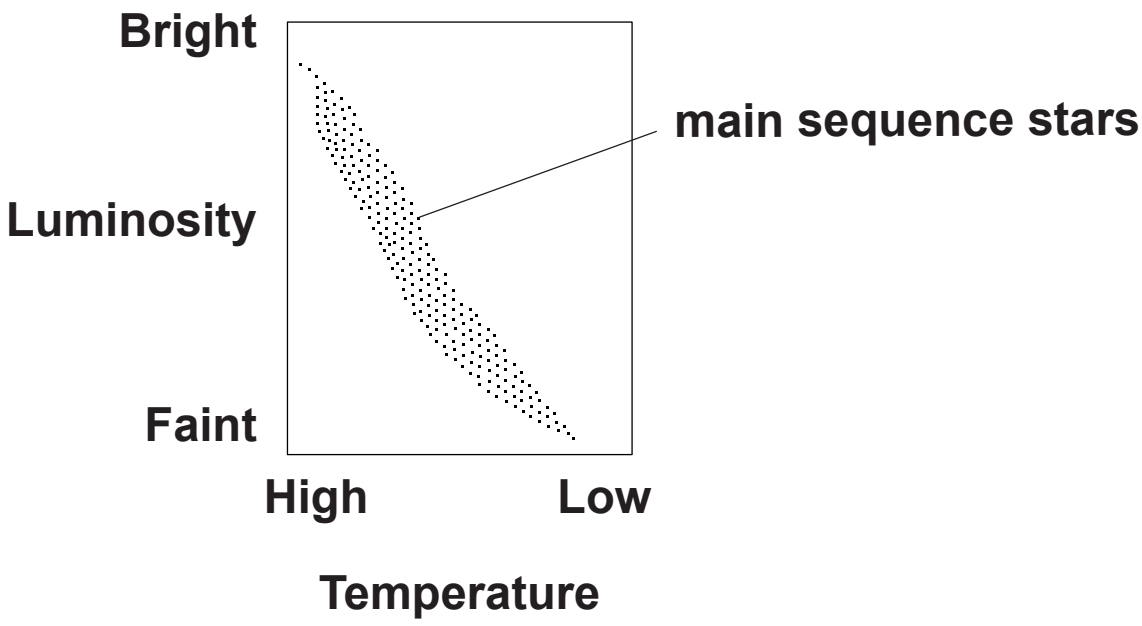

60
50
40
30
20
10
0
Frequency of wind direction (%)
J
F
M
A
M
J
J
A
S
O
N
D
Month
From south-west
From north-east

FIG. 2.1


Bright
main sequence stars
Luminosity
Faint
High
Low
Temperature

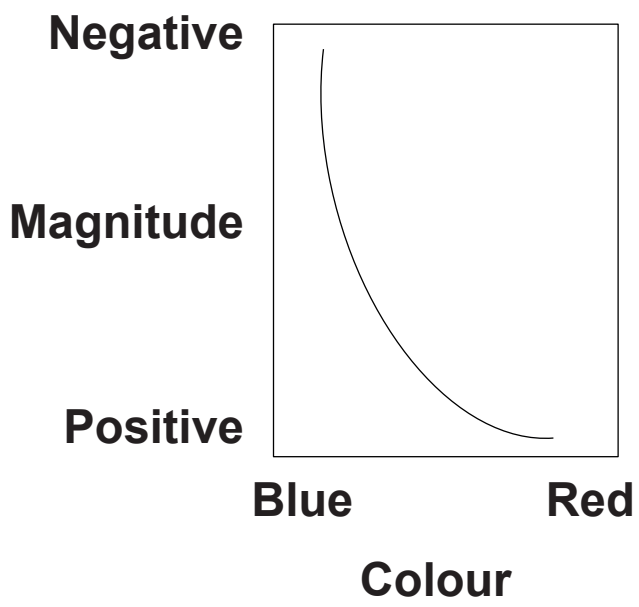
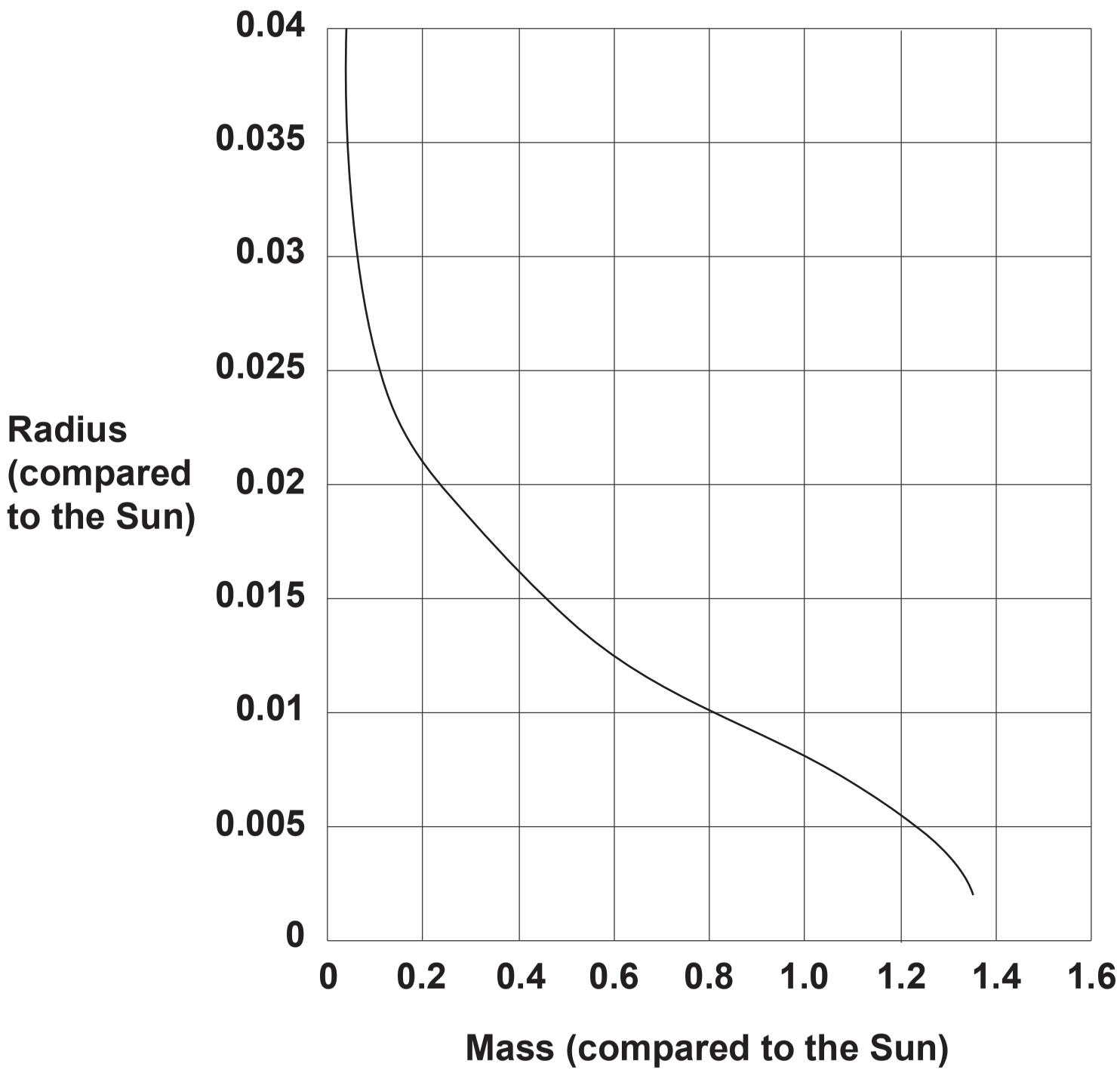
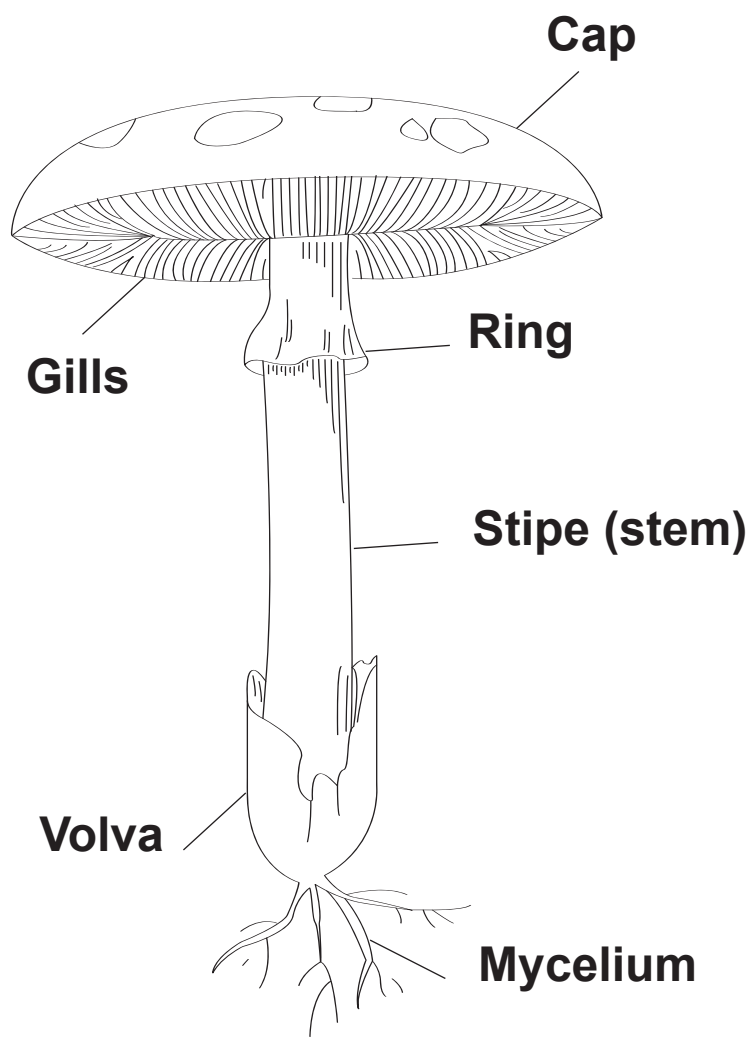

Negative
Magnitude
Positive
Blue
Red
Colour

FIG. 2.2


0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Radius (compared to the Sun)
0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
Mass (compared to the Sun)

BLANK PAGE

FIG. 3.1



The attachment of each gill to the stipe (stem) of a fungus is called the hymenium. There are different types of hymenium, as shown in TABLE 3.1 opposite.

TABLE 3.1

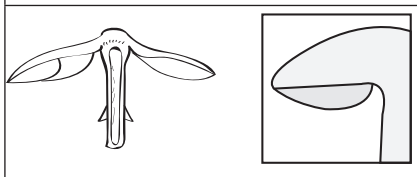
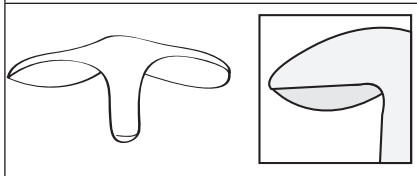
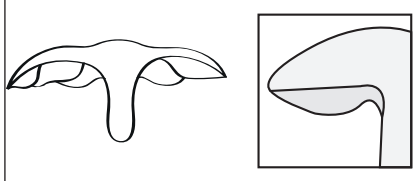
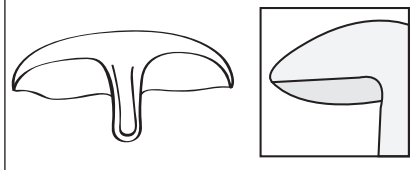
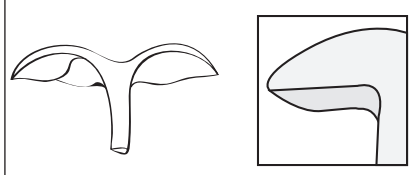
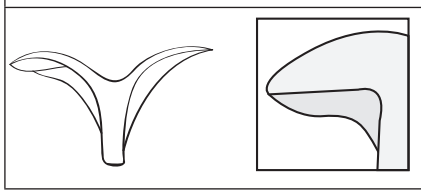
Hymenium		Description
	free	gills do not reach the stipe (stem)
	adnexed	gills are narrowly attached to the stipe (stem)
	sinuate	gills curve back down the stipe (stem) before attaching
	adnate	gills are broadly attached to the stipe (stem)
	subdecurrent	gill extends down slightly just as it reaches the stipe (stem)
	decurrent	the whole gill extends down the stipe (stem)

TABLE 3.2

Fungus name	Habitat	Features		
		Stipe (stem)	Spores	Hymenium
Amanitopsis vaginata	grassland	volva	white	free
Entoloma cetratum	woodland	free	pink	sinuate
Galerina marginata	on wood	ring	brown	adnexed
Lepiota procera	grassland	ring	white	free
Paxillus involutus	woodland	free	brown	decurrent
Pholiota squarosa	woodland	ring	brown	adnate
Pleurotus ostreatus	on wood	free	white	decurrent
Pluteus cervinus	on wood	free	pink	free
Tricholoma gambosum	grassland	free	white	sinuate
Volvariella speciosa	grassland	volva	pink	free

FIG. 3.2

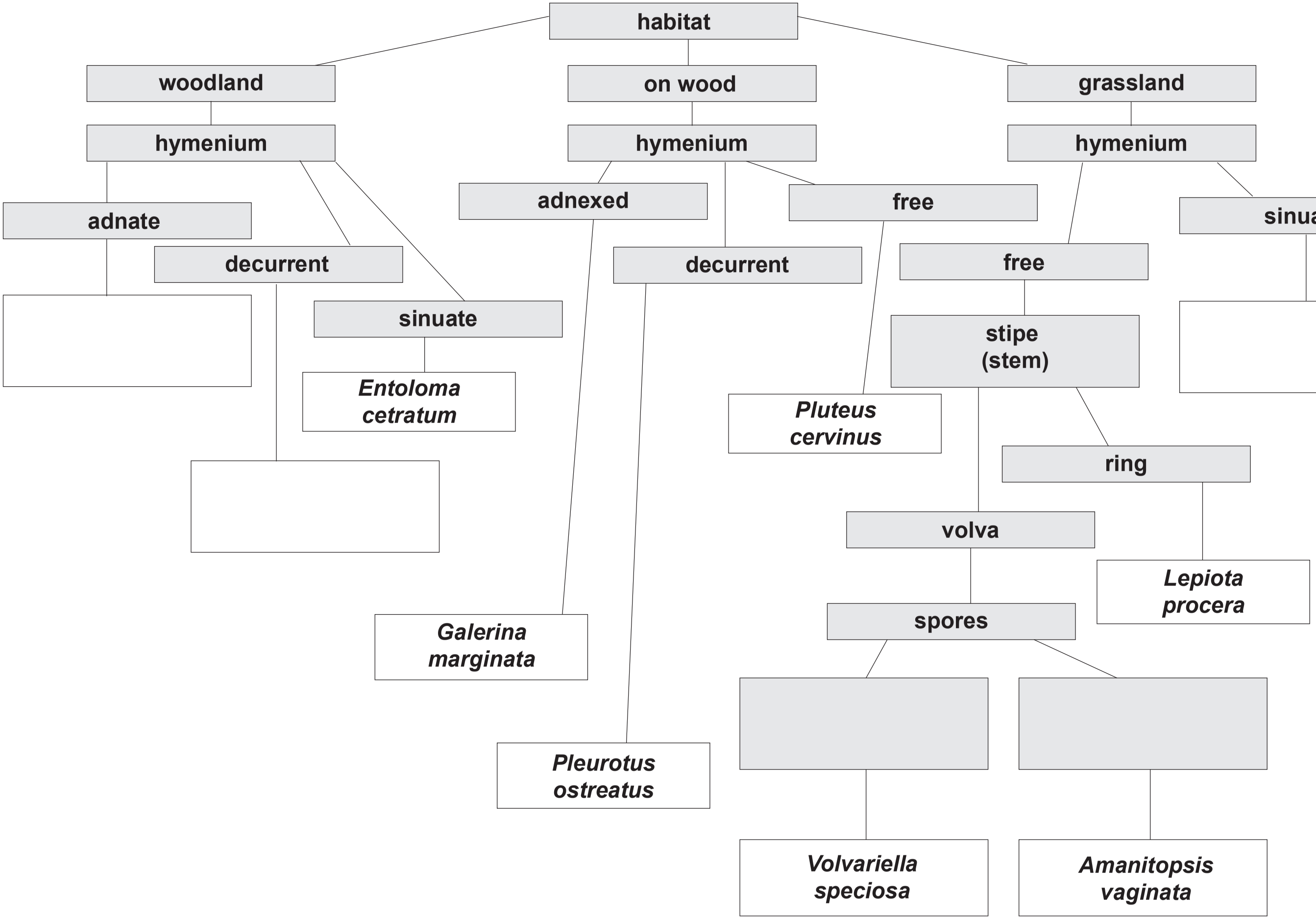

habitat
woodland
on wood
grassland
hymenium
hymenium
hymenium
adnate
decurrent
sinuate
adnexed
decurrent
free
free
sinuate
stipe
(stem)
Entoloma
cetratum
Pluteus
cervinus
ring
volva
Lepiota
procera
spores
Galerina
marginata
Pleurotus
ostreatus
Volvariella
speciosa
Amanitopsis
vaginata

FIG. 5.2

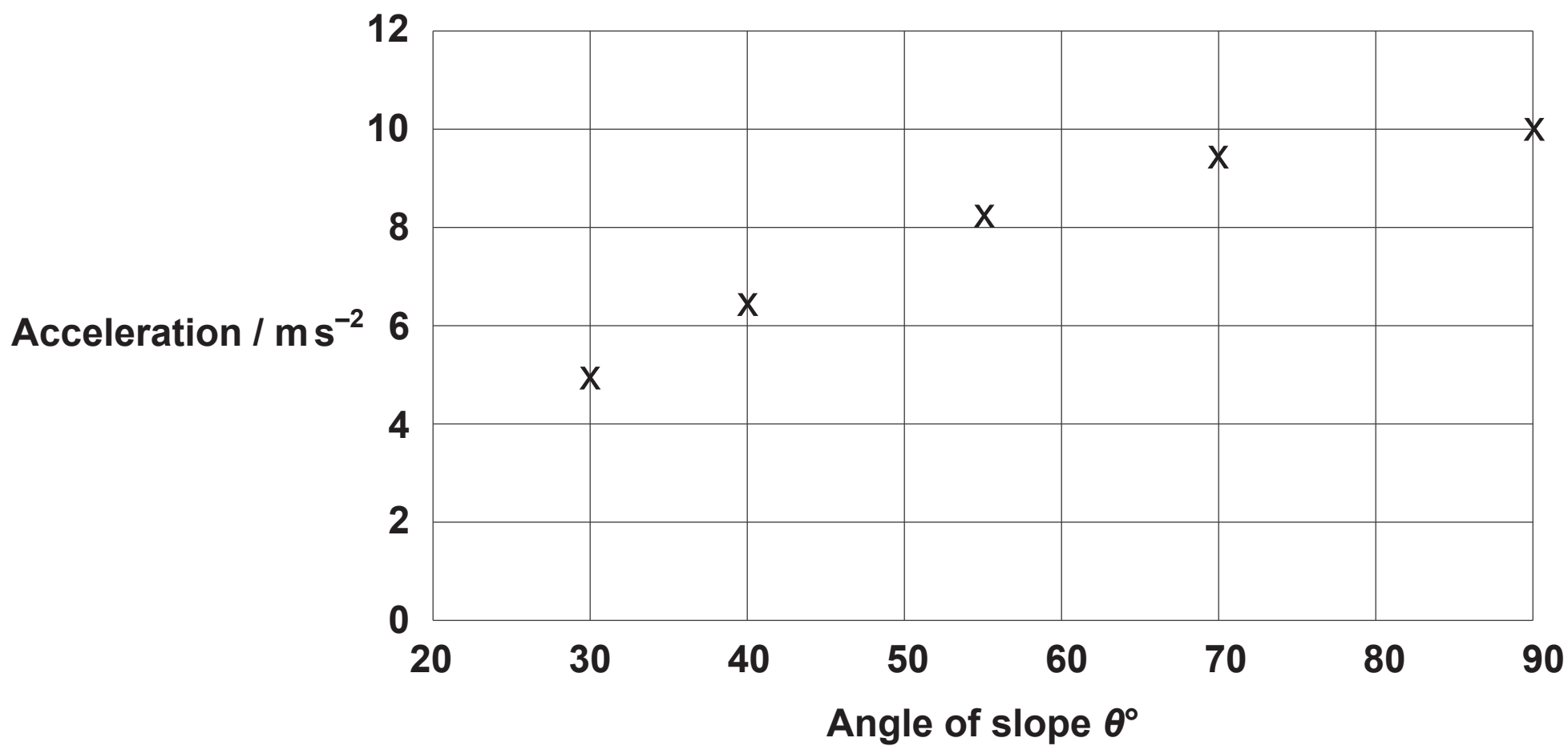
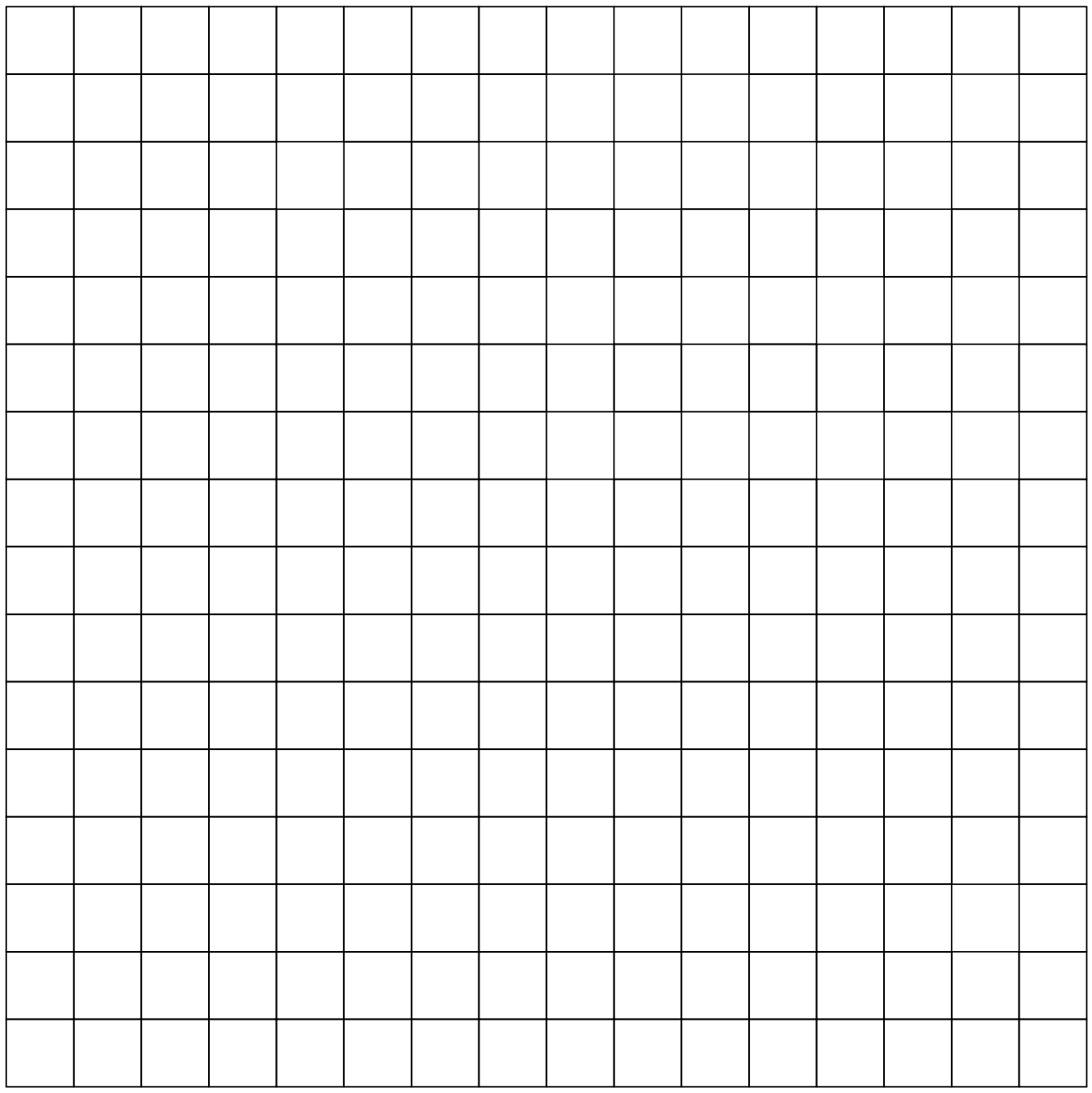

12
10
8
6
4
2
0
Acceleration / m s^{-2}
20
30
40
50
60
70
80
90
Angle of slope θ°

FIG. 6.1



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