

Y8 Mark Scheme – Hurricanes December 2024

1. Name the continents labelled on the world map, in the grid below. Two have been done for you (5)

B = South America

C = Africa

D = Europe

E = Asia

F = Australasia/Oceania

2. Name the world's major oceans on the world map, in the grid below. One has been done for you (4)

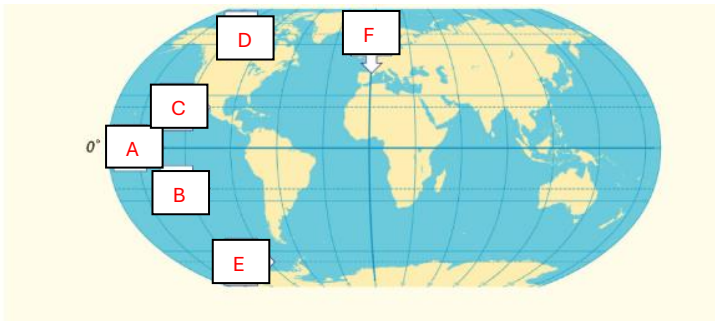
A = Atlantic

B = Pacific

D = Antarctic/Southern

E = Arctic

3. Add labels A-F in the correct places shown on the map of the world (6)



4. What is extreme weather (1)

Extreme weather is when a weather event is significantly different from the average or usual weather pattern.

5. Give one example of extreme weather (1)

e.g. blizzard, wildfire, Tornado, Storm or tropical storm. (1)

6. The Saffir-Simpson Scale is used to measure the intensity of a tropical storm. Using the image below, state the minimum wind speed for a tropical storm to be classed as a Category 4 tropical storm.

130 mph (130-150mph) (1)

7. Describe the location of tropical storms using the map below

Tropical storms are found in tropical oceans/in the tropics/close to the equator(1) Typically between 5° and 30° north or south of the equator (1)

Upto one mark for an example Pacific Ocean, Indian Ocean and Atlantic Ocean (1)

Q8. Tick the correct box to show whether each of the following statements about tropical storms is true or false. [2]

Ocean temperature need to be at least 27°C.

TRUE FALSE

Tropical storms form between 30° and 40° north and south of the equator.

Q9. Label the missing feature on the tropical storm diagram below. [1]

convection currents

Eye

cool dense air

hurricane winds and rain

warm moist air

Q10. Using the map of the world below, tick the two correct boxes to show the areas where tropical storms are common. [2]

A

B

C

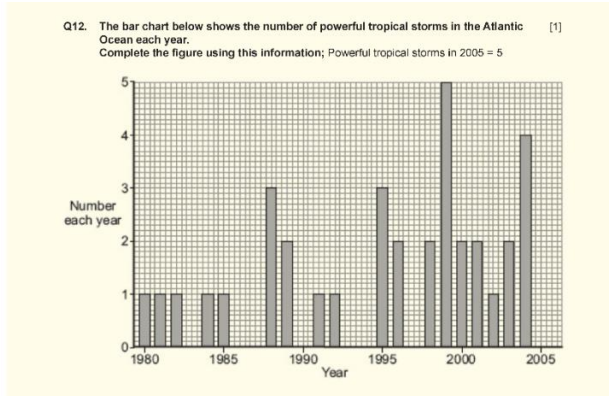
D

E

11. Explain the formation of a tropical storm (3)

**The air rises and forms heavy rain (1) They form over the sea (1)
 The air picks up moisture over the sea (1) which is warm (1). The air rises and cools (1) and heavy rain falls (1) Correct sequencing needed for 4th mark.**

12.



1 mark for correctly drawn bar

13. Max 3 marks

0 = 0 marks
 1-2 = 1 mark
 3-4 = 2 marks
 5 = 3 marks

Impact	Primary Impact	Secondary Impact
Homes and businesses destroyed	<input checked="" type="checkbox"/>	<input type="checkbox"/>
People made homeless	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Contaminated water	<input type="checkbox"/>	<input checked="" type="checkbox"/>
People die	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Crops destroyed by flood water	<input checked="" type="checkbox"/>	<input type="checkbox"/>

14. The photograph below shows houses in Louisiana, USA, built on high stilts. Give an example of a protection strategy (3P's) and explain how it can reduce the impacts from tropical storms (2)

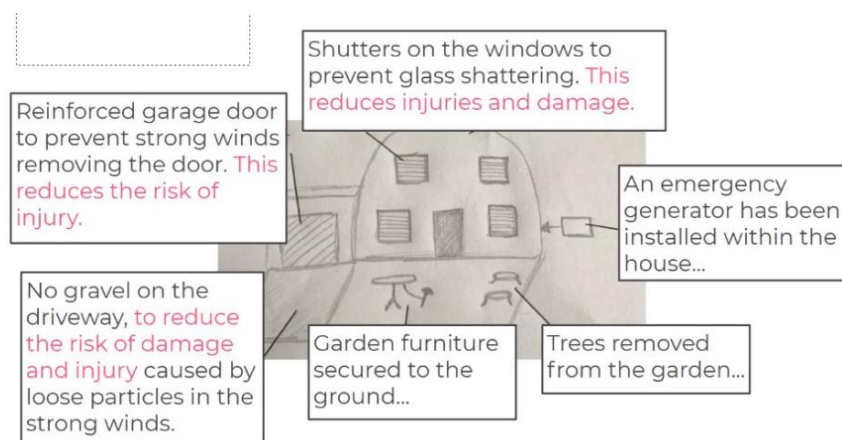
Can use any protection strategy e.g houses on stilts, boarding up windows.

One mark for exemplifying the protection strategy (name or describing it).

One mark for explaining how that strategy reduces the impacts (BLT).

e.g. houses on stilts leads to less damage by flooding / storm surge / less lives lost.

e.g. Houses/storm shelters built on stilts mean that houses/people are protected from flooding due to the stilts providing additional height above sea level to keep people safe



15. Give an example of how tropical storms can be 'predicted' (3P's) and say how it reduces their impacts (2)

(Satellites, drop sonds, ocean gliders, hurricane hunters, sentinels)

- E.g. hurricane tracking systems (1) mean that the path of a storm can be predicted and therefore people can for example be evacuated from the danger zone to reduce the risk of death and injury (1)**
- 1 mark for example of prediction strategy (1) and 2nd mark for clear explanation of how this strategy reduced impacts.**

16. Explain one immediate and one long term response to a tropical storm you have studied (4)

Level 1 – Simple statements. Or may only refer to one strategy that is explained.

Level 2 –Covers both immediate and long term responses. Clear statements that are explained using connectives (BLT). Does not need to refer to the figure.

Indicative content:

Immediate responses include search and rescue teams.

Long term responses include rebuilding strategies.

17. Compare the primary and secondary impacts from two tropical storms you have studied. i.e. one from a HIC country and one from a LIC country. (6)

Level 1 (1-2)	<ul style="list-style-type: none"> • Simple statements/list of effects without development.
Level 2 (3-4)	<ul style="list-style-type: none"> • Clear and developed statements explaining primary and secondary impacts. • Many only refer to one example at the bottom of this level. • At least one example must be named and points must begin to be developed. • Clear examination of how/why the effects vary between areas of contrasting levels of wealth some use of examples to achieve top of this level.
Level 3 (5-6)	<ul style="list-style-type: none"> • The command word is 'compare' therefore students will need to make reference to both examples, with at least one in detail. • Level 3 answers will not only contain case study detail but will also being to identify similarities in terms of primary/secondary effects but also appreciating that the LIC example will fair more negatively and explain why, with clarity and use of case study detail. • Level 3 (detailed) responses will be well developed and have accurate use of geographical terms.