NAWAI SECONDARY SCHOOL

Worksheet 03 **Year 13 Geography 2021** **Plate Tectonics**

A. Tick the best answer for Questions 1-10.

1.Which is the correct order for the layers of the Earth?

- Inner mantle, outer mantle, core, outer core
- Crust, core, mantle, outer core
- Crust, mantle, outer core, inner core

2.Which is the thinnest layer of the Earth?

- Crust
- Mantle
- Core

3.What is slab pull?

- When newer, less dense crust sinks
- When older, more dense crust sinks
- When older, less dense crust sinks

4.Where are earthquakes created?

- At destructive plate boundaries
- At conservative plate boundaries
- At all plate boundaries

5.Which is lighter: oceanic or continental crust?

- Oceanic
- Continental
- Neither. They are both the same

6.How does a collision zone differ from a destructive plate boundary?

- A collision zone forms through two continental plates, whereas destructive boundaries form from one continental and one oceanic
- A collision zone has plates moving towards one another, whereas destructive boundaries have plates moving away from one another
- Collision zones are only found in less developed countries

7.What happens at a constructive plate boundary?

- Two plates move apart and new land is created
- One plate is forced beneath another
- Plates slide side by side

8.Where could we see an example of a constructive plate boundary?

- The San-Andreas fault in California
- The Himalayas
- The Mid-Atlantic Ridge

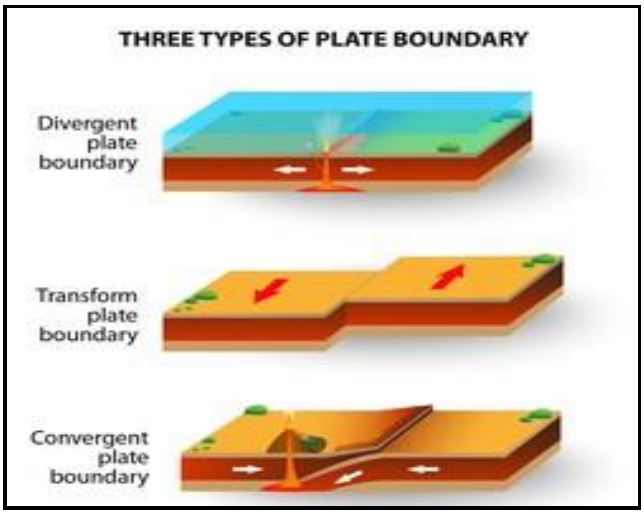
9.What is another name for a conservative plate boundary?

- Transform plate margin
- Subduction zone
- Divergent plate margin

10.What happens at a conservative plate boundary?

- Plates move in opposite directions
- Plates move in the same direction, but at different speeds
- Plates move either in opposite directions or in the same direction, but at different speeds

B. Describe each plate boundary shown below.



NAWAI SECONDARY SCHOOL

Worksheet 04 **Year 13 Geography**

Inside the Earth

M F R S E R O C R E N N I
F O L K U R O U T E O V F O F
E E F D L R O K T F E D K E F E T
P Q D M E F C D E J R H L P D P X
S W S V A F S U R F A C E S P S G
T G V S R N L V C A Q U T T E T F
V R M Z T M T L O C P C O V J V W
L E K X H L L L R E K P Q L A L K
P K T U F C E T E G S F J P E P Z
S G S G E R S O E O R E L S W S W
F F C R U S T I L Y U K F A F
D K H L D L A Y E R S D X

Search for the following words in the puzzle above.

MANTLE • OUTER CORE • CRUST • INNER CORE
TOPSOIL • SURFACE • LAYERS • EARTH

WHAT IS LATITUDE AND LONGITUDE, AND HOW DO YOU USE IT?

SOME OF THIS JOURNEY WILL TAKE PLACE OVER WATER. TO NAVIGATE THE OCEAN, YOU WILL HAVE TO UNDERSTAND LATITUDE AND LONGITUDE COORDINATES.

WHAT IS LATITUDE AND LONGITUDE?

LATITUDE – LINES THAT GO AROUND THE GLOBE (THEY GO BY THE DIRECTIONS NORTH AND SOUTH)

LONGITUDE – LINES THAT POINT FROM TOP TO BOTTOM OF THE GLOBE (THEY GO BY THE DIRECTIONS EAST AND WEST)

EXAMPLE: WHAT CONTINENT IS AT 20° SOUTH AND 40° WEST? SOUTH AMERICA

1. What continent is 40° north and 20° east? _____
2. What ocean is found at 20° south and 100° east? _____
3. What continent is at 20° south and 140° east? _____
4. What ocean is at 40° south and 160° west? _____
5. What continent is at 40° north and 100° east? _____

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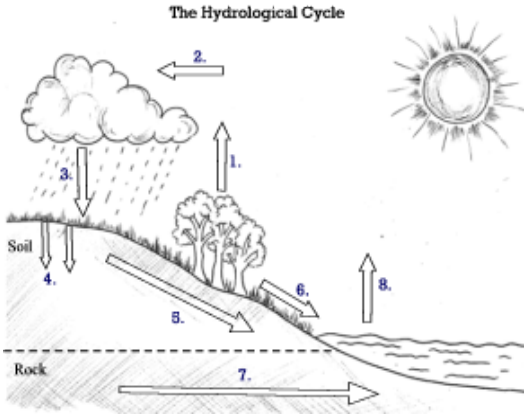
Landform Match

Can you match the landform to its description? Add the correct number to the description.

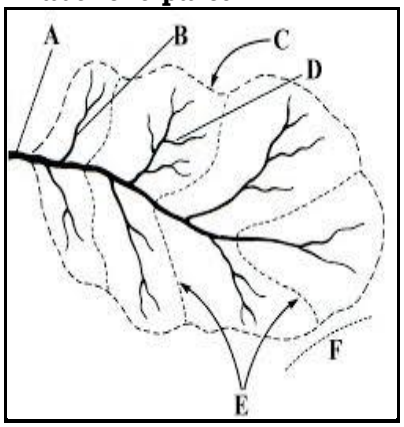
1. Cliff	_____	A narrow valley with steep sides caused by erosion.
2. Dune	_____	A hollow space in the ground or mountain with an opening.
3. Valley	_____	A high steep slope made of rock or soil usually along an ocean or sea.
4. Floodplain	_____	One of seven of the largest bodies of land on earth.
5. Continent	_____	Very dry land, often sandy.
6. Mountain	_____	A pile of sand created by the waves or the wind.
7. Desert	_____	A flat area surround river sides that floods when the river rises.
8. Canyon	_____	An area of land that is completely surrounded by water.
9. Island	_____	High with a peak and made of rocks and soils, sometimes with snow at the tops.
10. Plain	_____	Long flat ground.
11. Cave	_____	Low land between hills and mountains.

Define the all the terms shown in the river system.

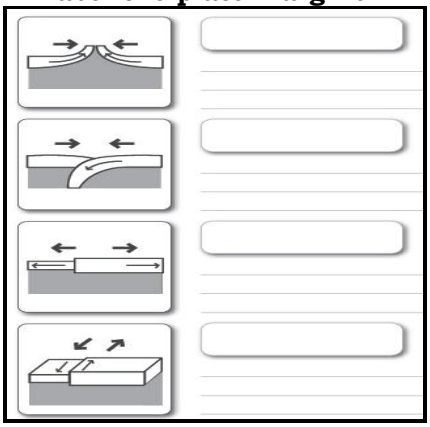
Label the parts 1-8



Label the parts A-E



Label the plate margins



NAWAI SECONDARY SCHOOL

Worksheet 05 Hydrology Year 13 Geography

Flooding

A river floods when the water normally flowing in the channel overflows its banks and spreads out onto the surrounding land. This causes major problems for people living close to the river.

Why do rivers flood?

A variety of factors can increase the likelihood of flooding.

Physical causes of flooding:

- heavy rainfall
- long periods of rain
- snowmelt
- steep slopes
- impermeable rock (doesn't allow water through)
- very wet, saturated soils
- compacted or dry soil

Human factors increasing flood risk:

- urbanisation, because towns and cities have more impermeable surfaces
- deforestation, because removing trees reduces the amount of water intercepted and increases run-off

Tick the best answer for Questions 1-7.

1.What of these is a human cause of flooding?

- Heavy rainfall
- Steep slopes
- Urbanisation

2. What of these is a physical cause of flooding?

- Urbanisation
- Snowmelt
- Deforestation

3. What is impermeable rock?

- Rock that doesn't allow water through it
- Rock that does allow water through it
- Rock that allows water through it during times of flood

4. What does a storm hydrograph show?

- How and when a rainfall event affects the discharge of a river
- How many storms have occurred during one month
- How much rainfall an area has had in one week

5. Which part of the flood hydrograph shows how long it takes for rainwater to reach the river?

- Peak rainfall
- Lag time
- Peak discharge

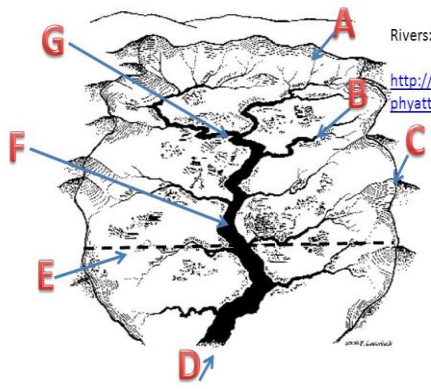
6**. How do steep valley sides affect the flood hydrograph?**

- They increase the peak rainfall
- They increase the peak discharge
- They increase the lag time

7. How are people in More Economically Developed Countries (MEDCs) and Less Economically Developed Countries (LEDCs) affected differently by flooding?

- People in LEDCs cannot afford home insurance so they lose everything
- People in MEDCs live on lower ground so they cannot return home very quickly
- People in LEDCs lack education so they do not understand that floods are dangerous

Name the features A – G Using the word box below



MINISTRY OF EDUCATION, HERITAGE & ARTS 2021

GEOGRAPHY YEAR 13 WORKSHEET 4

HYDROLOGY

(a) Definitions: Define any four of the following: (4 marks)

(i)	aquifer	(ii)	artesian well
(iii)	confluence	(iv)	drainage basin
(v)	zone of saturation	(vi)	hydraulic action

( ) _____
_____

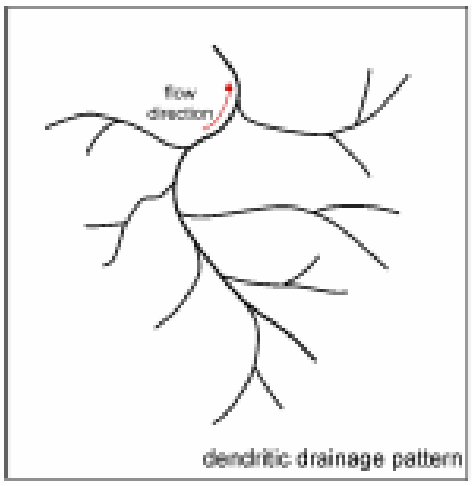
( ) _____
_____

( ) _____
_____

( ) _____
_____

(b) Resource Interpretation

Use the resource below and your knowledge to complete the stream orders in the diagram below.



Source: https://courses.lumenlearning.com

(c) Short Answer Questions

(i) State **two** uses of surface water

_____
_____ (2 marks)

(ii) Explain how the size of a river channel influences its velocity and ability to erode effectively.

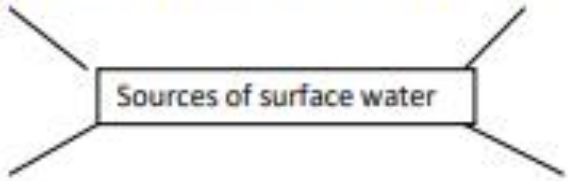
_____
_____ (2 marks)

MINISTRY OF EDUCATION, HERITAGE & ARTS 2021
GEOGRAPHY YEAR 13 WORKSHEET 5

HYDROLOGY

(a) Short Answer Questions

(i) Draw a star diagram to show the different sources of surface water.



(4 marks)

(ii) Describe a fluvial transportation process.

_____

_____

_____ (2 marks)

(iii) Explain the difference between pools and riffles.

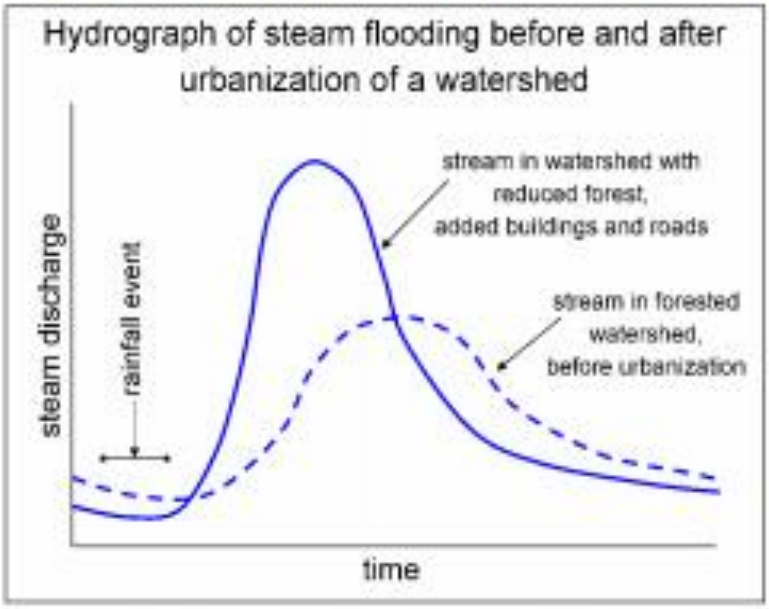
_____

_____

_____ (2 marks)

(b) Resource Interpretation

Use the resource given below and you knowledge to answer the question that follows.



Source: https://courses.lumenlearning.co

Explain the flood response of a stream to a given amount of rainfall before and after the stream drainage area was urbanized by removal of forest and addition of buildings and roads.

_____

_____(2 marks)

MINISTRY OF EDUCATION, HERITAGE & ARTS 2021

YEAR 13 GEOGRAPHY WORKSHEET 6

Note: Use your Geography Activity Book to write your answers.

HYDROLOGY – Groundwater and surface water

(a) Definitions Define any four of the following:

(i) aquifer (ii) water table

(iii) confined aquifer (iv) unconfined aquifer

(v) cone of depression (vi) artesian well **(4 marks)**

( ) _____

_____

( ) _____

_____

( ) _____

_____

( ) _____

_____

(b) Resource Interpretation

For each picture:

- Identify the method of surface water storage **(2 marks)**
- State an advantage and a disadvantage of the identified surface water storage method **(4 marks)**

Picture A

Source: https://www.slideshare.net

Picture B

Source: Source: https://www.orissapost.com