

**GOVERNMENT ZIRTIRI RESIDENTIAL SCIENCE COLLEGE**

**2020**

6<sup>th</sup> Semester (CBCS)

**GEOLOGY**

TWENTY THREE (B) PAPER

**( Environmental Geology )**

SECTION – A

**( Marks : 25 )**

- A. Multiple choice questions : (1X25=25)
- (1) Lower concentrations of greenhouse gases in the atmosphere and higher concentration of atmospheric dust was observed in the past during
    - (a) Glacial episode
    - (b) Interglacial episode
    - (c) Goldschmidt
    - (d) Arthur Holmes
  - (2) The water covers 70% of the Earth's surface; out of this fresh water is
    - (a) 1.0% - 1.75%
    - (b) 2.5% - 2.75%
    - (c) 3.5%-3.75%
    - (d) 5.0%-7.5%
  - (3) The layer of the planet Earth where life exist is known as
    - (a) Exosphere
    - (b) Ionosphere
    - (c) Biosphere
    - (d) Asthenosphere
  - (4) Climate which is a long-term average of weather typically averaged over a period of
    - (a) 5 years
    - (b) 10 years
    - (c) 20 years
    - (d) 30 years
  - (5) Atmospheric pressure increases with
    - (a) Decreasing altitude
    - (b) Increasing altitude
    - (c) Decreasing temperature
    - (d) Increasing temperature
  - (6) Recent volcanic activity in different parts of the world supports the interference that volcanoes are located mainly in
    - (a) The central region of the continent
    - (b) Zones of crustal activity

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- (c) Zones in the late stage of erosion
- (d) The center of landscape region
- (7) A flash flood is a flood that
  - (a) Is caused by heavy rain rather than from the flooding of a river
  - (b) Occurs in urban area
  - (c) Is caused by the blocking of drains
  - (d) Occurs suddenly and unexpectedly and for a short duration
- (8) Where are earthquakes most likely to take place?
  - (a) Along the core mantle boundary
  - (b) Where the composition of the earth tends to be uniform
  - (c) Near the fault zone
  - (d) Near the equator
- (9) Due to Coriolis effect, in the northern hemisphere any object that moves on a rotating planet turn
  - (a) Left (anti-clockwise)
  - (b) Right (Clockwise)
  - (c) Upward
  - (d) Downward
- (10) We have different season on the earth because of
  - (a) Bio-rhythmic cycles
  - (b) Earth's axial tilt
  - (c) Rotation of the earth
  - (d) Solar of the wind
- (11) Southwest monsoon in India happen during
  - (a) December to May
  - (b) October to January
  - (c) June to September
  - (d) April to November
- (12) Cloud which is created by strong updrafts of warm, moist air and causes heavy rainfall is
  - (a) Stratus
  - (b) Altostratus
  - (c) Cumulus
  - (d) Cumulonimbus
- (13) During El Nino periods, depletion of ocean water in nutrients and starvation of fish population occurs in
  - (a) Northern Pacific
  - (b) Eastern Pacific
  - (c) Southern Pacific
  - (d) Western Pacific
- (14) Sources of the Earth's heat energy is
  - (a) Solar energy
  - (b) Radioactivity
  - (c) Wind

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- (d) Ocean tides
- (15) Which one of the following is not a greenhouse gas?
- (a) Carbon dioxide
  - (b) Water vapor
  - (c) Butane
  - (d) Chlorofluorocarbon
- (16) The principal source of volatile organics (Hydrocarbon) is
- (a) Transportation
  - (b) Industrial processes
  - (c) Stationary fuel combustion
  - (d) Volcanoes
- (17) Leaked crude oil rapidly spreads on water surface as
- (a) Oil spill
  - (b) Oil sludge
  - (c) Oil slinger
  - (d) Oil slick
- (18) The disposal of industrial waste materials within soil or the vadose zone is known as
- (a) Sludge
  - (b) Landfills
  - (c) Incineration
  - (d) Leachate
- (19) Eutrophication causes decrease in
- (a) Dissolved hydrogen
  - (b) Dissolved Salts
  - (c) Dissolved oxygen
  - (d) Dissolved nitrogen
- (20) A good way of dealing with solid waste is Fluoride pollution mainly effects
- (a) Recycling
  - (b) landfilling
  - (c) Burning
  - (d) All of the above
- (21) A factor of safety less than 1.0 of a place indicates
- (a) Safe
  - (b) Very safe
  - (c) Fail
  - (d) Severe failing
- (22) Which part of Mizoram is not affected by flooding?
- (a) Sairang
  - (b) Lungsan
  - (c) Tlabung
  - (d) Bairabi
- (23) Deforestation, desertification, acidification, salinization all refers to

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- (a) Biomagnification
  - (b) Integrated management
  - (c) Sustainable development
  - (d) Land degradation
- (24) Which of the following is not the impact of urbanization?
- (a) Increased demand on resources
  - (b) Rise in temperature
  - (c) Earthquake
  - (d) Landslide
- (25) A hill consisting of loose, dry sand that slopes at the angle of repose and has no vegetation
- (a) Is stable unless over steepened by excavation
  - (b) May flow if it becomes saturated with water
  - (c) Will be more stable if vegetation takes roots on the hill
  - (d) All of the above

### SECTION-B

( Marks : 15 )

B. Fill in the blanks:

1X15=15

#### UNIT - I

- (1) In the air, the amount of water vapor is classified as \_\_\_\_\_.
- (2) The ozone layer is located in \_\_\_\_\_.
- (3) Naturally occurring isotopes is the most common method for measuring \_\_\_\_\_ of the ancient Earth.

#### UNIT -II

- (4) Angle of P-wave shadow zone is \_\_\_\_\_.
- (5) The forces resisting movement down the slope of debris or rocks are termed as \_\_\_\_\_.
- (6) In zones where air ascends, the air is less dense than the surroundings which creates a center of low atmospheric pressure. Such winds are called \_\_\_\_\_.

#### UNIT - III

- (7) The measure of the diffuse solar reflection of solar radiation back to the atmosphere out of the total solar radiation is known as \_\_\_\_\_.
- (8) The layer of the atmosphere where almost all clouds and weather phenomenon occur is \_\_\_\_\_.
- (9) During day time when the land is at maximum heating from the sun, wind blows from the ocean inland towards the land which is known as \_\_\_\_\_.

#### UNIT -IV

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- (10) Montreal Protocol which is an International treaty adopted on 16 of September, 1987 and aimed to regulate the production and uses of chemicals that contribute to the depletion of \_\_\_\_\_.
- (11) A \_\_\_\_\_ is a liquid that contain dissolved toxins when landfill waste breaks down and water filters through the waste.
- (12) Fluoride pollution mainly effects \_\_\_\_\_
- UNIT - V
- (13) The characteristic slope of a pile of a dry sand is called the \_\_\_\_\_
- (14) \_\_\_\_\_ is the most common type of geo-hazards experienced in Mizoram during June to October every year.
- (15) A powerful and deadly tropical cyclone known as cyclone \_\_\_\_\_ has caused damaged in East India and Bangladesh in May 2020.

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## ANSWER KEY

- A. (1)- a  
(2)- c  
(3)- c  
(4)- d  
(5)- b  
(6)- b  
(7)- c  
(8)- c  
(9)- b  
(10)- b  
(11)- c  
(12)- d  
(13)- b  
(14)- a  
(15)- c  
(16)- b  
(17)- a  
(18)- b  
(19)- c  
(20)- a  
(21)- c  
(22)- b  
(23)- d  
(24)- c  
(25)- d

### SECTION B

#### FILL IN THE BLANKS

- (1) Humidity  
(2) Stratosphere  
(3) temperature  
(4) 104-140 degree  
(5) Shear strength  
(6) Cyclone  
(7) Albedo  
(8) Troposphere

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- (9) Sea breeze
- (10) Ozone
- (11) Leachate
- (12) Teeth
- (13) Angle of repose
- (14) Landslide
- (15) Amphan