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Barasat, Kolkata - 700125

BRAINWARE UNIVERSITY

Term End Examination 2022

Programme – BBA-2022/BBA(DM)-2022/BBA(HM)-2022/B.Com.(BF)-Hons]-2022/B.Sc.
(AM)-Hons-2022/B.Sc.(MSJ)-Hons-2022/B.Sc.(PSY)-Hons-2022

Course Name – Environmental Studies

Course Code - ENV101

(Semester I)

Full Marks : 75

Time : 3:0 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 25=25

1. Choose the correct alternative from the following :

(i) State in which of the following ecosystem, the food web involves more species and more trophic levels?

- a) Grassland
c) Desert

- b) Ocean
d) Glacier

(ii) The flow of energy in a food chain is

- a) Unidirectional
c) Cyclic

- b) Bidirectional
d) Multi-directional

(iii) The coldest region of atmosphere is

- a) Mesosphere
c) Stratosphere

- b) Troposphere
d) Ionosphere

(iv) Ganga Action Plan was initiated by the prime minister

- a) Indira Gandhi
c) Rahul Gandhi

- b) Narendra Modi
d) Rajiv Gandhi

(v) Identify the functions of Forest

- a) Accessory function
c) Productive function

- b) Protective function
d) All the above

(vi) Eutrophication in lake is due to the presence of

- a) Nitrogen and Phosphorus
c) Chromium and Mercury

- b) BOD and COD
d) DO and bacteria

(vii) State which ecological pyramid is always upright?

- a) Pyramid of Number
c) Pyramid of Energy

- b) Pyramid of Biomass
d) All the above

(viii) One horned rhino is found in

- a) Panna national park
c) Jim Corbett national park
- (ix) Ozone hole in Antarctica is due to
a) Methane
c) CO₂
- (x) Pyramid of energy is always
a) Upright
c) Horizontal
- (xi) The second trophic level in a lake is
a) Benthos
c) Zooplanktons
- (xii) Lapse rate refers to
a) Population increases in area with increase of temperature
c) Temperature increases with increase in elevation
- (xiii) Which of the following regions have maximum biodiversity
a) Temperate rainforest
c) Tropical rain forest
- (xiv) 1. Ecosystems consists of
a) Only living organisms
c) Only insects
- (xv) Identify the temperature range of troposphere
a) -2 to -92 Å°C
c) -56 to -2 Å°C
- (xvi) The maximum quantity of fresh water occurs in
a) River
c) Polar ice caps and Glaciers
- (xvii) Locate the layer present immediately above the earth's surface
a) Troposphere
c) Mesosphere
- (xviii) Which is the basic component that flows in an ecosystem?
a) Energy
c) Food chain
- (xix) Interpret Which layer experiences positive lapse rate?
a) Troposphere and Stratosphere
c) Stratosphere and Mesosphere
- (xx) Choose in which layer ionization of gases takes place?
a) Troposphere
c) Mesosphere
- (xxi) Which water is available for plant uptake
a) Gravitational water
c) Combined water
- (xxii) Hygroscopic water is water that remains after drying of
a) Gravitational water
c) Combined water
- (xxiii) Which water is not available for plant uptake?
a) Hygroscopic and Combined water
c) Gravitational and Hygroscopic water
- (xxiv) WAS stands for
- b) Kaziranga national park
d) Sundarban national park
- b) CFC
d) Nitrogen
- b) Inverted
d) None of the above
- b) Phytoplanktons
d) Fungi
- b) Temperature decreases with increase in elevation
d) Both temperature decreases and increases with increase in elevation
- b) Taiga
d) Mangroves
- b) Living organisms and physical factors
d) Only physical factors
- b) 15 to -56 Å°C
d) -92 to 1200 Å°C
- b) Groundwater
d) Sea-water
- b) Stratosphere
d) Thermosphere
- b) Mass
d) None of the above
- b) Troposphere and Thermosphere
d) Troposphere and Mesosphere
- b) Stratosphere
d) Thermosphere
- b) Capillary water
d) Hygroscopic water
- b) Capillary water
d) Distilled water
- b) Hygroscopic and capillary water
d) Gravitational and Combined water

- a) Waste Activated sludge
c) Waste affected slurry
(xxv) The maximum sustainable yield is obtained when the population is
a) Half of the carrying capacity
c) Two-third of the carrying capacity
- b) Waste Activated system
d) Waste activation stock
b) Double of the carrying capacity
d) Three-fourth of the carrying capacity

Group-B

(Multiple Choice Type Question)

2 x 10=20

2. Choose the correct alternative from the following :

- (i) What radiations are absorbed by Carbon dioxide and Ozone
a) Ultrared and Infravioleat radiations
c) Infrared and Ultraviolet radiations
- b) Ultraviolet and Infrared radiations
d) None of these
- (ii) The type of pollution and phenomenon of marble cancer is due to
a) Air pollution and CFCs
c) Air pollution and Base Rain
- b) Water pollution and Fog
d) Air pollution and Acid Rain
- (iii) Which of the following gas affects human health by reducing the blood's ability to carry oxygen to different parts of the body?
a) Carbon dioxide
c) Carbon monoxide
- b) Nitrogen dioxide
d) Nitrous dioxide
- (iv) Bhopal gas tragedy was caused by the leakage of
a) Methyl isocyanate in 1985
c) Methyl isocyanate in 1984
- b) 2-4 dichlorophenoxyacetic acid in 1984
d) Hydrogen cyanide in 1984
- (v) Analyze the toxins that biologically magnify or accumulate in organisms are:
a) Heavy metals and Carbon dioxide
c) Fat and CFC's
- b) Mercury and DDT
d) None of these
- (vi) Green muffler and Greenhouse effect are related to
a) Air pollution and involves in photosynthesis
c) Water pollution and traps UV radiation
- b) Soil pollution and emits light
d) Noise pollution and traps infrared radiation
- (vii) A 5 % solution of a sewage sample is incubated for 5 days at 20°C. Find the BOD of the swage if the depletion of oxygen was found to be 5 mg/l.
a) 100 %
c) 100 ppm
- b) 25 mg/l
d) 100 g/l
- (viii) Green muffler and Greenhouse effect are related to
a) Air pollution and involves in photosynthesis
c) Water pollution and traps UV radiation
- b) Soil pollution and emits light
d) Noise pollution and traps infrared radiation
- (ix) The name of the diseases Minamata, Itai-Itai and Blue Baby are caused by
a) Cadmium-Mercury-Nitrate
c) Nitrate-Cadmium-Mercury
- b) Mercury-Nitrate-Cadmium
d) Mercury-Cadmium-Nitrate
- (x) Justify the 'Ozone hole' means and its result.
a) Increase in the concentration of ozone and Acid rain
c) Same concentration of ozone and Greenhouse effect
- b) Decrease in the concentration of ozone and Global warming
d) Hole in the stratosphere and UV radiations reach the earth

Group-C

(Multiple Choice Type Question)

3 x 10=30

a) (E), (C), (B), (D), (A)

b) (E), (B), (C), (D), (A)

c) (E), (D), (C), (B), (A)

d) (E), (C), (D), (A), (B)

(vii) **Select the correct statement about biodiversity**

a) The desert areas of Rajasthan and Gujarat have a very high level of desert animal species as well as numerous rare animals

b) Large scale planting of BT cotton has no adverse effect on biodiversity

c) Western Ghats have a very high degree of species richness and endemism

d) Conservation of biodiversity is just a fad pursued by the developed countries

(viii) **Peroxy-acetyl nitrate (PAN) is formed by the reaction of two primary pollutant, namely nitrogen oxide and _____ released from motor in the presence of sunlight.**

a) hydro-neutron

b) hydro-carbon

c) water-carbons

d) SO₂

(ix) Given below are two statements: One is levelled as Assertion (A) and the other is levelled as Reason (R): Assertion (A): The problem of organic in rivers is usually worse in hot summer months. Reason (R): Higher water temperatures exacerbate oxygen depletion. In the light of the above statements, choose the most appropriate answer from the options below:

a) Both (A) and (R) are true and (R) is the correct explanation of (A).

b) Both (A) and (R) are true and (R) is not the correct explanation of (A)

c) (A) is correct but (R) is not correct

d) (A) is not correct but (R) is correct.

(x) **Which of the following statements regarding the greenhouse effect has the lowest degree of certainty?**

a) Addition of greenhouse gases to the atmosphere results in increased heat energy in the atmosphere

b) Global warming will result in an increase in the number of tropical storms

c) Global warming will result in rising sea levels

d) The concentrations of greenhouse gases in the atmosphere are increasing due to human activities.
