



Indian Association for the Cultivation of Science
(Deemed to be University under the *de novo* Category)
Integrated Bachelor's-Master's Program in Science
Mid-Semester Examination (Spring Semester-2019)

Subject: Environmental Studies

Subject Code(s): AECC 1201

Full Marks: 25

Time Allotted: 2 h

Q1. Multiple Choice Questions (Any 20)

(20x0.5=10)

1. The origin of earth is best explained by
(a) Big-Bang theory (b) Fragmentation theory (c) Compaction and condensation theory
2. Average age of the planet Earth is
(a) 4.5 billion years (b) 3.5 billion years (c) 4.5 million years
3. The temperature in the surface of the Earth is a function of distance from the Sun, based on the surface temperature should have been -15°C , however the actual average surface temperature of Earth is 15°C . This 30°C warming of earth surface is caused by
(a) heating contributed other stars (b) green house warming (c) Thermal reaction in the Earth's interior
4. Law of Isostatic equilibrium is related to
(a) crustal plate distribution (b) origin of life (c) Hydrological cycle.
5. Earth's atmosphere and oceans were originated from
(a) meteoritic gases and vapor showered on earth (b) interior of the earth (c) condensation of gases & vapor from space.
6. Biosphere on the surface of the earth includes
(a) only oceans (b) only continents (c) a part of the atmosphere, hydrosphere and lithosphere representing existence of life.
7. Following the increasing trend for area covered in the Earth's surface the global oceans can be presented as
(a) Indian ocean > Pacific Ocean > Atlantic ocean (b) Indian ocean > Atlantic ocean > Pacific ocean
(c) Indian ocean < Atlantic ocean < Pacific Ocean.

8. The Indian ocean is different than other oceans being
(a) extended east to west (b) connected both poles (c) much bigger in area coverage
9. Based on the surface temperature which one of the following is correct
(a) Tropical zone > Temperate zone > Polar region (b) Tropical zone < Temperate zone < Polar region (c) Tropical zone > Polar region > Temperate zone.
10. During winter solstice for the northern hemisphere, which of the following is true?
(a) Day and night are of same duration in both hemisphere (b) Round the clock night in the Arctic region (c) Round the clock night in the Antarctic region.
11. Oxygen present in the Earth's atmosphere is contributed by
(a) Geo-chemical processes (b) Plant photosynthesis (c) lightning
12. Average height of the continents and average depth of the oceans are
(a) 1000 and 4000 meter (b) 1000 and 4000 km (c) 4000 and 1000 m
13. Which of the following is true
(a) Oceans are shallower than seas (b) Seas are shallower than Oceans (c) Seas are saltier than oceans
14. On an average oceans cover 70 % of the Earth's surface but the oceanic are is more in
(a) the northern hemisphere (b) the southern hemisphere (c) Antarctica
15. The average annual rainfall in the Earth surface is
(a) 10 cm (b) 100 cm (c) 1000 cm
16. Rainfall and temperature on the surface of the earth together control the
(a) Plant and vegetation distribution (b) ocean circulation (c) sea level rise.
17. Oceanic and atmospheric circulations are set in the surface of the earth for
(a) equilibrating the thermal anomaly one earth surface (b) convection current in the Earth's mantle (c) continental drift.
18. "Coriolis force" on the surface of the earth is felt 'nil' at the
(a) poles (b) Tropic of Capricorn (c) Equator
19. The wind moves towards equator from tropical region is known as
(a) Easterlies (b) Westerlies (c) Trade wind
20. Rainforest are primarily present in the
(a) polar region (b) in the Antarctic circle (c) tropical region

21. Which of the following is not a renewable resource?

(a) Hydroelectric

(b) Iron ore

(c) Plantation

22. Which of the following leads to soil erosion?

(a) Afforestation

(b) Thermal power generation

(c) Over grazing

23. Which activity does not lead to sustainable development

(a) Gender equality

(b) Youth mobilization

(c) Warfare

24. Which of the following plant types are characteristic flora of Sundarbans?

(a) Xerophyte

(b) Mesophyte

(c) Halophyte

25. Earth Day is celebrated on-

(a) 5th June

(b) 22nd April

(c) 22nd May

26. The gas responsible for Bhopal Gas Disaster is

(a) DDT

(b) MIC

(c) CFC

27. Chipko movement took place in

(a) Kumayon region

(b) Himachal region

(c) Tehri-Garhwal region

28. The S.I. unit units for radiation measurements is

(a) Roentgen

(b) RAD

(c) "Gray" (Gy)

29. The "Arabari Model" of West Bengal is famous for-

(a) Joint Forest Management

(b) Rain water Harvesting

(c) Solar power plant

30. Locust is

(a) an insect

(b) a bird

(c) a fish

Q2. Write the Full forms of the following abbreviations (any 6):

[6x0.5=3]

a) CBD,

b) MAB,

c) CPCB

d) UNCED,

e) UNFCCC,

f) ZSI,

g) NGT

Q3. Short Questions (any 10)

[10x1=10]

a) What is PAN?

b) Mention any two effects of VOC.

c) What is Minamata diseases?

d) Give examples of two renewable and two non-renewable energy resources.

e) What do you mean by PM_{2.5} and PM₁₀?

f) Give examples of in-situ and ex-situ conservation. (at least two each)

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Perfect Shot

- g) What do you mean by Ramsar convention. Give example of one Ramsar site.
- h) What do you mean by carrying capacity?
- i) What are the utilities of bio-gas?
- j) What is biosphere reserve?
- k) Why Bishnois are known as practicing naturalist?
- l) What are the differences between endemic species and endangered species?
- m) What do you mean by biological invasion?
- n) What are the significance of rainwater harvesting?
- o) What is bio-piracy? Give example.

Q4. Discuss the following issues. (any two)

[2x1=2]

- a) Integrated pest management.
- b) Sustainable development.
- c) Environmental movement.
- d) Global warming and climate change.