

**TELANGANA UNIVERSITY**  
**S.S.R. DEGREE COLLEGE, NIZAMABAD (C.C:5029)**  
**VI SEMESTER INTERNAL ASSESSMENT I EXAMINATIONS**  
**BIOTECHNOLOGY QUESTION BANK**

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**1. Who was the first scientist to coin the term SMOG and to describe the layers of SMOG?**

- (a) Nikola Tesla
- (b) Stephen Hawking
- (c) Dr Henry Antoine
- (d) Nicolaus Copernicus

**Sol: (c) Dr Henry Antoine.**

**2. Which of the following pollutants are responsible for the cause of SMOG?**

- (a) From incinerators
- (b) Emissions from vehicles
- (c) Both incinerators and emissions from vehicles
- (d) None of the above

**Sol: (c) Both incinerators and emissions from vehicles.**

**3. Which of the following is called the secondary air pollutant?**

- (a) PANs
- (b) Ozone
- (c) Carbon monoxide
- (d) Nitrogen Dioxide

**Sol: (b) Ozone.**

**4. Which of the following particles is called the particulate pollutants?**

- (a) Ozone
- (b) Radon
- (c) Fly Ash
- (d) Ethylene

**Sol: (c) Fly Ash.**

**5. Which of the following agents is responsible for turning the TajMahal yellow?**

- (a) Sulphur
- (b) Chlorine
- (c) Sulphur dioxide
- (d) Nitrogen dioxide

**Sol: (c) Sulphur dioxide**

**6. Which of the following statements is true about SMOG?**

- (a) SMOG is derived from the fog
- (b) SMOG is derived from smoke
- (c) SMOG is derived from water vapour
- (d) SMOG is derived from both fog and smoke

**Sol: (d) SMOG is derived from both fog and smoke.**

**7. What type of precautions should be taken to survive when the ozone level is high?**

- (a) Drive less
- (b) Stay hydrated
- (c) Both A and B
- (d) Go for a long walk

**Sol: (c) Both A and B.**

**8. Which of the following statements is true about the Air Quality Index?**

- (a) It indicates the colour of the air.
- (b) It predicts ozone levels in your area.
- (c) It determines the intensity of sound and sound pollution.
- (d) It estimates air pollution mainly sulphur content in the air.

**Sol: (b) It predicts ozone levels in your area.**

**9. The major photochemical smog is\_\_\_\_\_.**

- (a) Hydrogen peroxide
- (b) Chlorofluorocarbon
- (c) Peroxyacetyl nitrate
- (d) All of the above

**Sol: (b) Chlorofluorocarbon.**

**10. Which of the following diseases are caused by smog?**

- (a) Rickets
- (b) Bronchitis
- (c) Breathing Problems
- (d) All of the above

**Sol: (d) All of the above.**

**11.DDT and Aluminium cans are examples of \_\_\_\_\_.**

- (a) Primary Pollutants
- (b) Secondary pollutants
- (c) Biodegradable Pollutants
- (d) Non-Biodegradable Pollutants

**Sol: (d) Non-Biodegradable Pollutants.**

**12.How many different types of primary pollutants together contribute to about 90 per cent of the global air pollution?**

- (a) Three
- (b) Five
- (c) Seven
- (d) None of the above

**Sol: (b) Five.**

**13.Which of the following agents is mainly responsible for the secondary pollutants?**

- (a) Smog and Ozone
- (b) Sulphur trioxide
- (c) Nitrogen dioxide
- (d) All of the above

**Sol: (d) All of the above.**

**14.Smoke, fumes, ash, dust, nitric oxide and sulphur dioxide are the main sources of \_\_\_\_\_.**

- (a) Primary Pollutants
- (b) Secondary pollutants
- (c) Bio-Degradable Pollutants
- (d) None of the above

**Sol: (a) Primary Pollutants.**

**15.Which of the following industries plays a major role in polluting air and increasing air pollution?**

- (a) Brick manufacturing industries
- (b) Manufacture of gases industries
- (c) Electrical appliances and electrical goods industries
- (d) All of the above

**Sol: (d) All of the above.**

**16. Which of the following gas is more in percentage in the air?**

- (a) Oxygen gas
- (b) Nitrogen gas
- (c) Water vapour
- (d) Carbon dioxide gas

**Sol: (b) Nitrogen gas**

**17. Increased levels of air pollution results in \_\_\_\_\_.**

- (a) Soil erosion
- (b) Global warming
- (c) Respiratory problems
- (d) All of the above

**Sol: (c) Respiratory problems.**

**18. The Taj Mahal, Lotus Temple, Golden Temple, India Gate and other famous heritage monuments are being affected by \_\_\_\_\_.**

- (a) Air pollution
- (b) Water pollution
- (c) Noise pollution
- (d) All of the above

**Sol: (a) Air pollution.**

**19. What is the total percentage of nitrogen gas in the air?**

- (a) 12 per cent
- (b) 21 per cent
- (c) 78 per cent
- (d) 87 per cent

**Sol: (c) 78 per cent.**

**20. Which of the following gases are called Greenhouse gases?**

- (a) Methane
- (b) Nitrogen
- (c) Carbon dioxide
- (d) Both a and c

**Sol: (d) Both a and c.**

**21. Which One of the Following Is Not a Greenhouse Gas?**

- (a) Methane
- (b) Hydrogen
- (c) Nitrous oxide
- (d) Ozone

**Answer: (b)**

**Explanation-** methane, carbon dioxide, nitrous oxide and water vapour are the primary greenhouse gases that contribute to the greenhouse effect. A greenhouse gas (GHG or GhG) is a gas that absorbs and emits radiant energy in the thermal infrared spectrum, resulting in the greenhouse effect.

**22. Which of the Following Have Higher Energy Levels and Shorter Wavelengths?**

- (a) Infrared radiation
- (b) Ultraviolet radiation
- (c) Beta radiation
- (d) Alpha radiation

**Answer: (b)**

**Explanation-** The UV radiation has a range of 100-400 nm, the UV that particularly has high energy is categorised in the wavelength of 100-200 nm.

**23. Normal Greenhouse Effect Is Important for the Sustenance of Life on Earth as it Has Increased the Earth's Surface Temperature By**

- (a) 15 °C
- (b) 50 °C
- (c) – 18 °C
- (d) 33 °C

**Answer: (d)**

**Explanation-** The greenhouse effect is a natural phenomenon that keeps the earth at the temperature required for life to thrive. The remaining radiation, roughly half of it, reaches the planet and is absorbed by seas and land. This keeps the ground warm and provides food for plants, animals, and humans.

**24. Infrared Radiations Have -----Wavelength?**

- (a) Shorter
- (b) Infinite
- (c) Longer
- (d) Zero

**Answer: (c)**

**Explanation-** The section of the electromagnetic spectrum that stretches from the long wavelength, or red, end of the visible-light range to the microwave range is known as infrared radiation. Near-infrared, medium infrared, and far-infrared are the three areas of the infrared spectrum.

**25. Which of the Following Greenhouse Gases Is Present in Very High Quantities?**

- (a) Carbon dioxide
- (b) Ethane
- (c) Propane
- (d) Methane

**Answer: (a)**

**26. This process is functional in removing carbon dioxide from the atmosphere**

- (a) lightning
- (b) deforestation
- (c) burning of fossil fuels
- (d) photosynthesis

**Answer: (d)**

**27. Mainly, Ozonosphere is depleted by**

- (a) CFCs
- (b) excess CO<sub>2</sub>
- (c) ozone
- (d) excess CO

**Answer: (a)**

**28. This is not a possible adverse effect of global warming**

- (a) sea level rise
- (b) an increase of UVB radiation
- (c) retreat of glaciers
- (d) extraordinary weather patterns

**Answer: (b)**

**29. Correct descending order of relative contribution of various greenhouse gases to total global warming is**

- (a) carbon dioxide; methane; CFCs; nitrous oxide
- (b) carbon dioxide; methane; nitrous oxide; CFCs
- (c) carbon dioxide; CFCs; nitrous oxide; methane
- (d) carbon dioxide; CFCs; methane; nitrous oxide

**Answer: (a)**

**30. CFCs have a continuing effect on the ozone layer as**

- (a) they are efficiently absorbed by atmospheric water vapours
- (b) they are being produced in increasing amounts all over the world
- (c) Cl atoms formed by them are used up in reactions causing degradation of the ozone
- (d) Cl atoms formed by them only act as catalysts in reactions causing degradation of the ozone

**Answer: (d)**

**31. Biomass is used in the production of**

- (a) fibres
- (b) chemicals
- (c) transportation fuels
- (d) biochemicals

**Answer: (c)**

**32. Production of bioethanol is through fermentation of \_\_\_\_\_ and starch components**

- (a) alcohol
- (b) sugar
- (c) milk
- (d) acid

**Answer: (b)**

**33. This is also called a biogas**

- (a) biobutanol
- (b) biodiesel
- (c) bioethanol
- (d) biomethane

**Answer: (d)**

**34. In biomethane, the percentage of carbon dioxide is**

- (a) 55-60
- (b) 35-45
- (c) 30-40
- (d) 32-43

**Answer: (c)**

**35. By-products generated during the rectification of bioethanol is utilized as**

- (a) sheep feed
- (b) cow feed
- (c) dog feed
- (d) pig feed

**Answer: (c)**

**36. Bioethanol is mixed with \_\_\_\_\_ to prepare transport fuel**

- (a) oil
- (b) petrol
- (c) kerosene
- (d) diesel

**Answer: (b)**

**37. Bioethanol is denatured alcohol, also referred to as**

- (a) methylene
- (b) ethylene
- (c) ethylene glycol
- (d) methylated spirit

**Answer: (d)**



**38. This forestry material is used as biomass**

- (a) fish oil
- (b) logging residues
- (c) manure
- (d) tallow

**Answer: (b)**

**39. The aerobic digestion of sewage is utilized in the production of**

- (a) metal articles
- (b) biofuels
- (c) biomass
- (d) synthetic fuels

**Answer: (b)**

**40. This is an example of starch crops biomass feedstocks**

- (a) cornstover
- (b) wheat straw
- (c) orchardprunings
- (d) sugar cane

**Answer: (d)**

Short Answers.

1. What is Environment?
2. What are green house gases?
3. What are re-newable energy resources?
4. What is climate change?
5. What is global warming?