



# BIOLOGY

## BOOKS - JMD BIOLOGY (PUNJABI ENGLISH)

### ECOSYSTEM

#### Exercise

1. Nitrogen is critical element of the ecosystem because it is

- A. Essential element
- B. Abundant in atmosphere
- C. Labile in nature
- D. Fixed by microbes

**Answer: A**



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2.  $CO_2$  and  $O_2$  balance in atmosphere at due to

A. Photosynthesis

B. Respiration

C. Leaf anatomy

D. Photophosphorylation or  $C_2$  cycle

**Answer: A**



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**3. Most vital process for existence of life on Earth is**

A. Reproduction of plants and animals

B. Respiration of animals

C. Photosynthesis by plants

D. Communication in animals

**Answer: C**



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4. A habitat with long severe winter and growing season of a few months of Summer forms

A. Grasslands

B. Tundra

C. Taiga

D. Savannah

**Answer: B**



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5. Alpine forests of Himalayas have

A. Tall evergreen coniferous trees

B. tall broad leaved evergreen trees

C. Tall broad leaved deciduous trees

D. Dwarf shrubby plants

**Answer: A**



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**6.** In India, temperate evergreen vegetation occurs mostly in

A. Rajasthan and South Punjab

B. Eastern and western Himalayas less than

3500 m

C. Western Himalayas above 3500 m

D. Western Ghats and Assam

**Answer: D**



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7. Difference between tropical rainforest and temperate forest is

- A. Tropical forest have more of angiosperms while temperate forests have more of gymnosperms
- B. Tropical forest is homogeneous while temperate one is heterogeneous
- C. Plants of temperate forests are more mesophytic
- D. Trees of temperate forests are taller than those tropical forests

**Answer: B**





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8. Who proposed the term ecosystem?

A. Odem

B. Gardner

C. Warming

D. Tansley

**Answer: D**



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9. The importance of ecosystem lies in

A. cycling of materials

B. Flow of energy

C. Both A and B

D. Its biomass

**Answer: C**



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10. An ecosystem does not normally alter because it is in a state of

A. Homeostasis

B. Imbalance

C. Deficient in light

D. Deficient in components

**Answer: A**



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**11.** The two basic components of an ecosystem are

- A. Plants and animals
- B. Weeds, trees, animals and man
- C. Energy flow and mineral cycling
- D. Biotic and abiotic factors

**Answer: D**



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12. An ecosystem of the ecosphere is

A. Different communities of plants, animals and microbes together with their physicochemical environment

B. Different communities of plants and microbes along with their physicochemical environments

C. A localised assemblage of several plants and animals

D. An assemblage of plants, animals and their surrounding

**Answer: A**



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**13.** The driving force for any existing

A. Biomass

B. Carbohydrates in producers

C. Solar energy

D. Producers

**Answer: D**



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**14. Ecosystem of the biosphere is**

A. Always open without any exception

B. Always close to without

C. Both open and closed depending upon  
community

D. Both open and closed depending on biomass

**Answer: A**



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**15.** The major components of an ecosystem are

A. Food chain and decomposers

B. Mineral cycling and energy

C. Food chain and energy flow



## D. Energy flow and decomposers

**Answer: D**



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**16.** Which of the following is not used for construction of ecological pyramids?

A. Fresh weight

B. Dry weight

C. Number of individuals

D. Rate of energy flow

**Answer: A**



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**17.** Tip of an ecological pyramid is occupied by

A. Producers

B. Herbivores

C. Carnivores

D. None of the above

**Answer: C**



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**18.** The circulation of cycling of elements in an ecosystem is known as

- A. Geological cycling
- B. Geochemical cycling
- C. Bio geochemical cycle
- D. Nutrient cycling

**Answer: C**



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**19.** Give two examples of passive immunity.



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**20.** Crystalline rocks are natural source of which of the by genetic element?

A. Calcium

B. Phosphorus

C. Magnesium

D. Sulphur

**Answer: B**



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**21. Biochemical cycle with gaseous phase is**

A. Carbon

B. Sodium

C. Phosphorus

D. Magnesium

**Answer: B**



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**22. Which one is sedimentary cycle?**

A. Oxygen cycle

B. Nitrogen cycle

C. Hydrogen cycle

D. Phosphorus cycle

**Answer: D**



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**23.** Pyramid of numbers deals with number of

A. Species in an area

B. Individuals in a immunity

C. Individuals in a trophic level

D. Subspecies in a community

**Answer: C**



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**24.** Pyramid of numbers in a freshwater pond ecosystem is

- A. Irregular type
- B. Inverted type
- C. Upright type
- D. Spindle shaped type



**Answer: C**



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**25.** Ecological pyramids are of how many types?

A. Two

B. Three

C. Four

D. Five

**Answer: B**



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**26. Fill in the Blanks**

Crop fields and aquarium are \_\_\_\_\_  
ecosystems.



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**27. Fill in the Blanks**

Water soluble inorganic nutrients go down

into the soil by \_\_\_\_\_.



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## 28. Fill in the Blanks

\_\_\_\_\_ and \_\_\_\_\_ environment favour  
decomposition .



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## 29. Fill in the Blanks

DFC begins with \_\_\_\_\_ organic matter.



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### 30. Fill in the Blanks

Pyramid of energy is always\_\_\_\_\_.



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### 31. Fill in the Blanks

The species that invade the bare area are called\_\_\_\_\_.



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### 32. Fill in the Blanks

\_\_\_\_\_ % of carbon is found in oceans.



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### 33. Fill in the Blanks

The natural reservoir of phosphorus is \_\_\_\_\_.



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### 34. Fill in the Blanks

Decomposition is largely an\_\_\_\_\_requiring process.



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### 35. Fill in the Blanks

The rate of biomass production is called\_\_\_\_\_.



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### 36. True and False Type Questions

The annual NPP of biosphere is about 170 billion tons.



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### 37. True and False Type Questions

Plants capture only 2-10% of PAR.



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### 38. True and False Type Questions

Death of organism is the beginning of the DFC.



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### 39. True and False Type Questions

Omnivorous has a fixed trophic level in a food chain.



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## 40. True and False Type Questions

The species that invade the bear area is climax species.



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## 41. True and False Type Questions

Carbon cycle is a sedimentary cycle.



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## 42. True and False Type Questions

Rock is the biggest reservoir of phosphorus.



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## 43. True and False Type Questions

In water ecosystem the pioneers are phytoplanktons.



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#### 44. True and False Type Questions

Biomass of an organisms is measured in Joules



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#### 45. True and False Type Questions

Primary consumers in a food chain are usually carnivores



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**46.** List the abiotic components of an ecosystem.



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**47.** Which pyramid is always upright?



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**48.** Explain the meaning of food web and illustrate with a ray diagram.



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**49.** Differentiate between grazing food chain and detritus food chain.



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**50.** Who are the primary consumers in the food chain?



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**51.** What is humification?



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**52.** What is the primary source of energy in detritus food chain?



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**53.** Give an account of energy flow in an ecosystem.





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**54.** Give the diagrammatic representation of carbon cycle in biosphere.



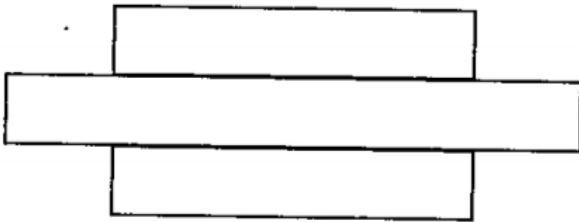
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**55.** What is the ecological succession? Explain various events that occur during ecological succession taking example of succession in a hydrosphere.



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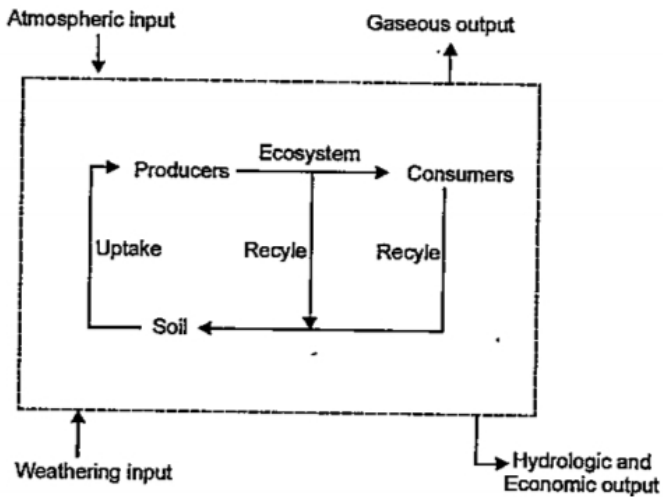
56. Identify the type of given ecological pyramid.



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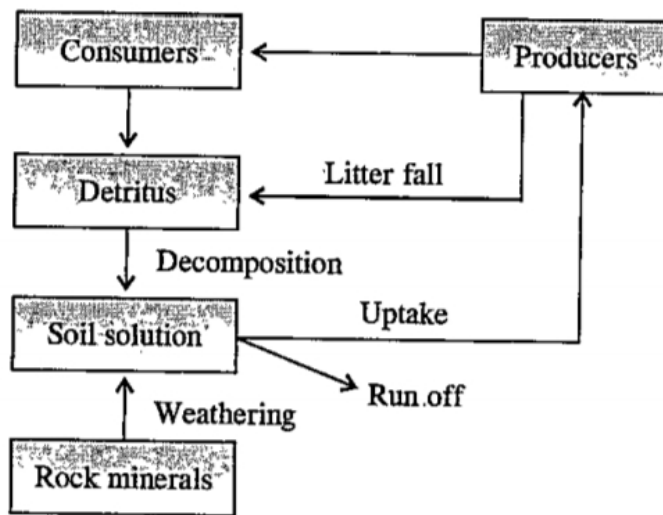
57. What type of process is illustrated in the following flowchart?





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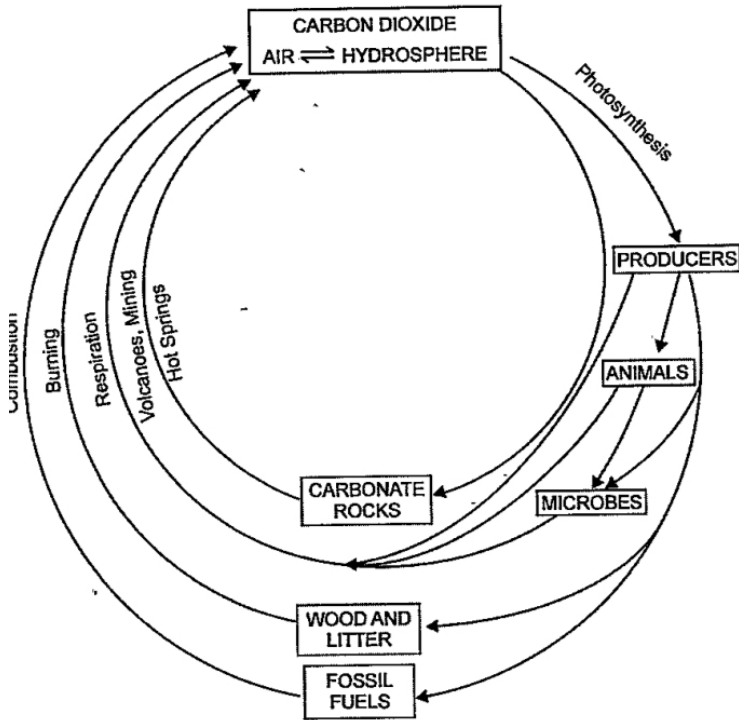
58. What type of cycle is shown in the following illustration?



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59. Name the biochemical cycle shown in the below figure. How would the flow of the nutrient in the cycle be affected due to large

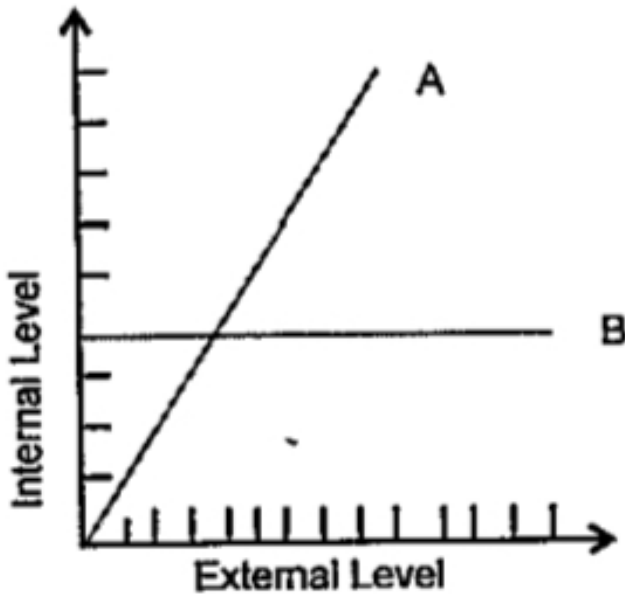
# scale deforestation?



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60. Given below is a graph depicting organismic response to changing external

condition. According to their response the organisms are grouped into two types. Name the type which show (i) Pattern A and (ii) Pattern B.



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