1.

Which one of the following is an incorrect statement with respect to life span of organisms?

1. Peepal tree has a much longer life span as compared to a mango tree

2. Life spans of organisms are not necessarily correlated with their size

3. Single-celled organism like Amoeba does not show natural death

4. It is correlated with the complexity and habit of plants

2.

An aquatic plant which is commonly known as "Terror of Bengal",can propagate vegetative by _____and its also called _____

1. Offsets, Water hyacinth

2. Offsets, Water lettuce

3. Turions, Water lily

4. Bulbils, Potamogeton

3.

In the life span of which group of plants, vegetative, reproductive and senescent are clearly distinct?

1. Annual plants

2. Biennial plants

3. Perennial plants

4. More than option is correct

4.

Juvenile phase or vegetative phase is related with all, except

1. It is pre-reproductive phase in the life cycle of an individual

2. It is the period of growth

3. It is of different durations in different organisms

4. It involves the appearance of flowers in higher plants

5.

Zoospore is

1. Formed by the fusion of two gametes

2. Flagellated and motile structure

3. The net result of sexual reproduction

4. Always diploid

6.

All organisms have to reach a certain stage of growth and maturity in their life, before they can reproduce sexually. That period of growth

1. Is called the juvenile phase, not vegetative phase

2. Is called the vegetative phase, not the juvenile phase

3. While ends then marks the beginning of the reproductive phase

4. Is variable in the same organisms

7.

Mark the odd one (w.r.t. zygote)

1. Formed in the water or inside the body of the organism

2. Develops a thick wall in all organisms

3. The vital link between the two generations

4. Divides by meiosis in the haplontic life cycle

8.

Development of a new individual from a single gamete without fusion with another gamete is called

1. Parthenocarpy

2. Sporophytic budding

3. Parthenogenesis

4. Polyembryony

9.

In most of the aquatic algae, syngamy occurs in the external medium. In this condition

1. Organism shows great synchrony between the sexes

2. The small number of gametes and produced

3. The female gamete is not released into the water

4. Male gamete should develop before the female gamete

10.

Organisms that reproduce by binary fission are said to be immortal because

1. The parent continues to live as two daughter individuals

2. Mitosis occurs without spindle formation

3. Only a part of parent body forms the reproductive unit

4. Daughter individuals formed are clones of the parent

11.

The most vital event of sexual reproduction is

1. Fusion of gametes

2. Gamete formation

3. Gamete transfer

4. Release of gametes

12.

Development of zygote into individuals of the new generation

1. Depends on the type of life cycle the organism has and the environment to which has and the environment it is exposed to

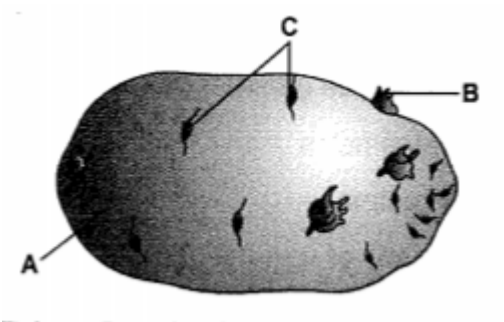
2. Is independent of the environment to which the organism is exposed

3. Always occurs through embryo formation

4. Never needs a period of rest before its germination

13.

Identify the labels A, B and C in the given diagram



1. Tuber, Germinating eye bud, Eyes

2. Bulb, Node, Eyes

3. Rhizome, Node, Flower

4. Tuber, Internode, Adventitious buds

14.

Read the following statements carefully

a. Neelakuranji flowers once in 12 yeats

b. In the majority of organisms, male and female gametes are motile

c. During embryogenesis, the zygote undergoes mitosis and cell differentiation

1. All are correct

2. Only (b) is incorrect

3. All are incorrect

4. (a) and (b) are correct

15.

Sexual reproduction is

1. Fast and simple process

2. Slow and simple process

3. Fast and complex process

4. Slow and complex process

16.

Clones cannot be obtained from

1. Rhizome

2. Tuber

3. Sucker

4. Zygote

17.

Juvenile or vegetative phase

1. Is of variable durations in different organisms

2. Is also called reproductive phase

3. Is a feature of monocarpic plants only

4. Involves gamete production

18.

Mark the correct statement (w.r.t. reproduction)

1. A biological process to produce new offsprings

2. Enables the continuity of the species, generation after generation

3. Incorporates genetic variations and makes the basis of evolution

4. More than one option is correct

19.

Match column I with column II and select the correct option

Column I	Column II
a. Offest	(i) 
b. Tuber	(ii) 
c. Rhizome	(iii) 
d. Bulbil	(iv) 

1. a(i), b(iv), c(iii), d(ii)

2. a(i), b(iv), c(ii), d(iii)

3. a(iv), b(i), c(iii), d(ii)

4. a(i), b(ii), c(iii), d(iv)

20.

Consider the following statements (a-d) about "terror Bengal"

a. An aquatic plant which can propagate vegetatively at a phenomenal rate

b. One of the most invasive weeds growing in standing water

c. It drains oxygen from water which leads to the death of fishes

d. It was introduced in Bengal because of its beautiful flowers and shape of fruits

Which of the above statements are correct?

1. b & d

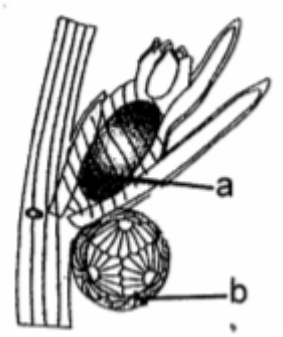
2. a & d

3. a & b only

4. a, b & c

21.

Given below figure represents some structures of a green alga denoted as a and b. Identify these structures.



1. Both 'a' and 'b' are sex organs where 'a' is nucule and 'b' is a globule

2. Both 'a' and 'b' are sex organs where 'a' is antheridium and 'b' is oogonium

3. Both 'a' and 'b' are vegetative propagules known as bulbils

4. Both 'a' and 'b' are non-jacketed sex organs present in Chara

22.

In angiosperms plants, embryogenesis

1. Refers to the process of development of zygote from embryo

2. Involves cell division and cell differentiation

3. Refers to the process of development of embryo from zygophore

4. Involves meiotic as well as mitotic divisions

23.

Which of the following structure represents vital link between two successive generations?

1. Spore mother cell

2. Zygote

3. Antheridium

4. Zygophore

24.

Term 'vegetative reproduction' is frequently used in

1. Plants

2. Monerans

3. Animals

4. Both plants and animals

25.

Select the odd one w.r.t. asexual reproduction

1. Need of both male and female parents

2. Produces a number of individuals

3. Rapid method

4. Absence of haploid - diploid alternation

26.

In Bryohyllum vegetative propagation is brought about by

1. Axillary buds present at the margins of leaves

2. Axillary buds present at the tip of leaves and stems

3. Adventitious buds present at the margins of leaves

4. Adventitious buds present at the tip of leaf and stem

27.

Which of the following statement is correct?

1. Strobilanthus Kunthinan flowers once in 12 years

2. Formation of the diploid embryo is universal in all sexually reproducing organisms

3. In the majority of organisms, both male and female gametes are stationary

4. Sexual reproduction is an elaborate, complex and rapid process as compared to asexual reproduction

28.

Match correctly w.r.t. mode of propagation

1. Adventitious bud - Potato tuber

2. Offset - Lotus

3. Seed - Cereal

4. Rhizome - Terror of Bengal

29.

Algae and fungi resort to sexual reproduction because

1. It is more rapid form of propagation

2. Zygote as with its thick wall make them able to withstand unfavourable conditions

3. Formation of zygote is universal event

4. Every organism begins life as a single cell

30.

male and female flowers are present on same plant in all of these, except

1. Cucurbits

2. Coconuts

3. Maize

4. Date palm

31.

Gametes are haploid. It signifies that

1. They cannot be formed without meiosis

2. They always have half the number of chromosomes than that of main plant body

3. Bryophytes produce them by mitosis

4. Bryophytes do not show meiosis since plant body is haploid

32.

Identify the correct match

Column l		**Column ll**
1. Grasses	-	Runners
2. potato	-	Rhizome
3. Crocus	-	Tuber
4. Agave	-	Bulb

33.

Select incorrect statement w.r.t. life span.

a. It is the period from the reproductive phase to the senescent phase.

b. Life spans of organisms are not necessarily correlated with their sizes.

c. No individual is immortal, whether single-celled or multi-celled.

d. The life span of banana tree is 25 years.

1. a & d

2. a & b

3. a & c

4. c & d

34.

Find odd one w.r.t. monoecious condition.

1. Chara

2. Marchantia

3. Cucurbits

4. Coconuts

35.

A : Zoospores are most common asexual reproductive structures in algae

R : Algae and fungi require water for fertilization always.

1. If both Assertion & Reason are true and the reason is the correct explanation of the assertion.

2. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion

3. If Assertion is a true statement but Reason is false.

4. If both Assertion and Reason are false statements.

36.

Sexual reproduction in different animals involves formation of gametes by

1. Same individual if hermaphrodite

2. By different individuals of the opposite sex

3. Female only

4. Both (1) & (2)

Fill OMR Sheet