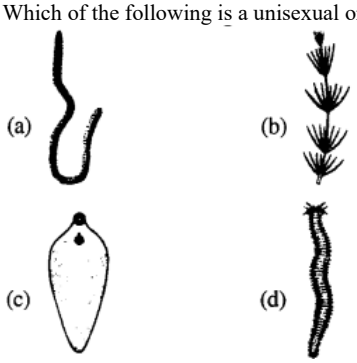
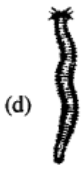
Reproduction in Organisms

Question 1.
Which of the following is a unisexual organism?



Answer:



Question 2.
Which of the following groups is formed only of the hermaphrodite organisms?
(a) Earthworm, tapeworm, housefly, frog
(b) Earthworm, tapeworm, sea horse, housefly
(c) Earthworm, leech, sponge, roundworm
(d) Earthworm, tapeworm, leech, sponge
Answer:
(d) Earthworm, tapeworm, leech, sponge

Question 3.
Which of the following options shows bisexual animals only?
(a) Amoeba, sponge, leech
(b) Sponge, cockroach, Amoeba
(c) Earthworm, sponge, leech
(d) Tapeworm, earthworm, honeybee
Answer:
(c) Earthworm, sponge, leech

Question 4.
Read the following statements and select the incorrect one.
(a) Cucurbits and coconuts are monoecious plants.
(b) Papayas and date palms are dioecious plants.
(c) Leeches and tapeworms are bisexual animals.
(d) Sponges and coelenterates are unisexual animals.

Answer:
(d) Sponges and coelenterates are unisexual animals.

Question 5.
Meiosis does not occur in
(a) asexually reproducing diploid individuals
(b) sexually reproducing haploid individuals
(c) sexually reproducing diploid individuals
(d) all of these.
Answer:
(a) asexually reproducing diploid individuals

Question 6.
A diploid parent plant body produces _____ gametes and a haploid parent plant body produces _____ gametes.
(a) diploid, haploid
(b) haploid, diploid
(c) diploid, diploid
(d) haploid, haploid
Answer:
(d) haploid, haploid

Question 7.
Which of the following organisms has the highest number of chromosomes?
(a) Housefly
(b) Butterfly
(c) Ophioglossum
(d) Onion
Answer:
(c) Ophioglossum

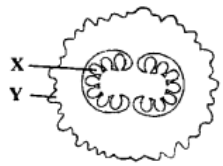
Question 8.
In maize, a meiocyte has 20 chromosomes. What will be the number of chromosomes in its somatic cell?
(a) 40
(b) 30
(c) 20
(d) 10
Answer:
(c) 20

Question 9.
If a butterfly has chromosome number 360 in its meiocyte (2n). What will be the chromosome number in its gametes?
(a) 380
(b) 190
(c) 95
(d) 760
Answer:
(b) 190

Question 10.
In flowering plants, both male and female gametes are non-motile. The method to bring them together for fertilisation is
(a) water
(b) air
(c) pollination
(d) apomixis
Answer:
(c) pollination

Question 11.
In which of the following plants, sepals do not fall off after fertilisation and remain attached to the fruit?
(a) Brinjal
(b) Cucumber
(c) Papaya
(d) Bitter gourd
Answer:
(a) Brinjal

Question 12.
Which of the labelled parts in the transverse section of tomato fruit, is/are diploid?



(a) X
(b) Y
(c) Both X and Y
(d) None of these
Answer:
(c) Both X and Y

Question 13.
The wall of the ovary forms
(a) pericarp
(b) fruit wall
(c) fruit
(d) both (a) and (b).
Answer:
(d) both (a) and (b).

Question 14.
The term 'clone' cannot be applied to offspring formed by sexual reproduction because
(a) offspring do not possess exact copies of parental DNA
(b) DNA of only one parent is copied and passed on to the offspring
(c) offspring are formed at different times
(d) DNA of parent and offspring are completely different
Answer:
(a) offspring do not possess exact copies of parental DNA

Question 15.
The male gametes of rice plant have 12 chromosomes in their nucleus. The chromosome number in the female gamete, zygote and the cells of the seedling will be, respectively
(a) 12,24,12
(b) 24,12,12
(c) 12, 24, 24
(d) 24, 12, 24.
Answer:
(c) 12, 24, 24

Question 16.
Appearance of vegetative propagules from the nodes of plants such as sugarcane and ginger is mainly because
(a) nodes are shorter than intemodes
(b) nodes have meristematic cells
(c) nodes are located near the soil
(d) nodes have non-photosynthetic cells.
Answer:
(b) nodes have meristematic cells

Question 17.
There is no natural death in single celled organisms like Amoeba and bacteria because
(a) they cannot reproduce sexually
(b) they reproduce be binary fission
(c) parental body is distributed among the offspring
(d) they are microscopic.
Answer:
(c) parental body is distributed among the offspring

Question 18.
There are various types of reproduction. The type of reproduction adopted by an organism depends on
(a) the habitat and morphology of the organism
(b) morphology of the organism
(c) morphology and physiology of the organism
(d) the organisms habitat, physiology and genetic makeup.
Answer:
(d) the organisms habitat, physiology and genetic makeup.

Question 19.
Which of the following is a post-fertilisation event in flowering plants?
(a) Transfer of pollen grains
(b) Embryo development
(c) Formation of flower

(d) Formation of pollen grains
Answer:
(b) Embryo development

Question 20.
The number of chromosomes in the shoot tip cells of a maize plant is 20. The number of chromosomes in the microspore mother cells of the same plant shall be
(a) 20
(b) 10
(c) 40
(d) 15
Answer:
(a) 20

Question 21.
The growth phase of an organism before attaining sexual maturity is referred to as
(a) juvenile phase
(b) vegetative phase
(c) both (a) and (b)
(d) none of these.
Answer:
(c) both (a) and (b)

Question 22.
Select the monocarpic plant out of the following.
(a) Bamboo
(b) Lite hi
(c) Mango
(d) All of these
Answer:
(a) Bamboo

Question 23.
Clear cut vegetative, reproductive and senescent phases cannot be observed in
(a) annual plants
(b) perennial plants
(c) biennial plants
(d) ephemeral plants.
Answer:
(b) perennial plants

Question 24.
Strobilanthus kunthiana flowers once in
(a) 5 years
(b) 12 years
(c) 20 years
(d) 50 years.
Answer:
(b) 12 years

Question 25.
Strobilanthus kunthiana differs from bamboo in
(a) being monocarpic
(b) length of juvenile phase
(c) being polycarpic
(d) none of these.
Answer:
(b) length of juvenile phase

Question 26.
Oestrous cycle is reported in
(a) cows and sheep
(b) humans and monkeys
(c) chimpanzees and gorillas
(d) none of these.
Answer:
(a) cows and sheep

Question 27.
Which of the following animals show menstrual cycle?
(a) Gorillas and chimpanzees
(b) Monkeys and humans
(c) Orangutans and monkeys
(d) All of these

Answer:
(d) All of these

Question 28.
Senescent phase of an organism's life span can be recognised by
(a) slow metabolism
(b) cessation of reproduction
(c) decreased immunity
(d) all of these
Answer:
(d) all of these

Question 29.
If a fungal thallus has both male and female reproductive structures, it will be called
(a) heterothallic
(b) homothallic
(c) dioecious
(d) monoecious
Answer:
(b) homothallic

Question 30.
Staminate flowers produce
(a) eggs
(b) antherozoids
(c) fruits
(d) all of these
Answer:
(b) antherozoids

Question 31.
Single-celled animals are said to be immortal because
(a) they grow indefinitely in size
(b) they can tolerate any degree of change in temperature
(c) they can reproduce throughout their life span
(d) they continue to live as their daughter cells.
Answer:
(d) they continue to live as their daughter cells.

Question 32.
Which of the following has the longest life span?
(a) Banyan tree
(b) tortoise
(c) parrot
(d) Elephant
Answer:
(a) Banyan tree

Question 33.
Select the option which arrnages the given organisms in ascending order of their life span.
(a) Parrot < Crow < Butterfly < Banyan tree
(b) Butterfly < Crow < Parrot < Crocodile
(c) Fruit fly < Crocodile < Parrot < Banyan tree
(d) Parrot < Tortoise < Dog < Crow
Answer:
(c) Fruit fly < Crocodile < Parrot < Banyan tree

Question 34.
_____ is a life process that is not essential for an individual's survival but for survival of the species.
(a) Growth
(b) Reproduction
(c) Respiration
(d) Nutrition
Answer:
(b) Reproduction

Question 35.
'Clones' are individuals that have exactly the same
(a) Lifespan
(b) physiology
(c) growth rate
(d) genetic makeup.
Answer:
(d) genetic makeup.

Question 36.
Which one of the following processes results in the formation of clone of bacteria?
(a) Regeneration
(b) Budding
(c) Binary fission
(d) Fragmentation
Answer:
(c) Binary fission

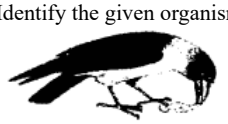
Question 37.
Asexual reproduction is seen in members of Kingdom
(a) Monera
(b) Plantae
(c) Animalia
(d) All of these.
Answer:
(d) All of these.

Question 38.
During binary fission in Amoeba which of the following organelles is duplicated?
(a) Plasma membrane
(b) Nucleus
(c) Contractile
(d) All of these
Answer:
(b) Nucleus

Question 39.
Vegetative propagation is the term used for
(a) sexual reproduction in animals
(b) sexual reproduction in plants
(c) asexual reproduction in animals
(d) asexual reproduction in plants.
Answer:
(d) asexual reproduction in plants.

Question 40.
Which of the following is not used for vegetative propagation?
(a) Bud
(b) Bulbil
(c) Turion
(d) Antherozoid
Answer:
(d) Antherozoid

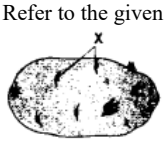
Question 41.
Identify the given organism and find its maximum life span.



(a) Sparrow, 25 years
(b) Crow, 30 years
(c) Crow, 15 years
(d) Eagle, 40 years
Answer:
(c) Crow, 15 years

Question 42.
Which of the following options shows two plants in which new plantlets arise from the same organ?
(a) Dahlia and ginger
(b) Potato and sweet potato
(c) Dahlia and rose
(d) Potato and sugarcane
Answer:
(d) Potato and sugarcane

Question 43.
Refer to the given figure and identify X in it.



(a) Offset
(b) Eyes
(c) Runner
(d) Bulb
Answer:
(b) Eyes

Question 44.
Fleshy buds produced in the axil of leaves, which grow to form new plants when shed and fall on ground, are called
(a) bulbs
(b) bulbils
(c) tubers
(d) offsets.
Answer:
(b) bulbils

Question 45.
In which one pair, both the plants can be vegetatively propagated by leaf pieces?
(a) Bryophyllum and Kalanchoe
(b) Chrysanthemum and Agave
(c) Agave and Dioscorea
(d) Bryophyllium and Asparagus
Answer:
(a) Bryophyllum and Kalanchoe

Question 46.
Identify the given vegetative propagule.

(a) Bulb
(b) Runner
(c) Rhizome
(d) Bulbil
Answer:
(d) Bulbil

Question 47.
If a leaf cell of Agave has x chromosomes then what will be the number of chromosomes in a cell of its bulbil?
(a) 2 x
(b) x/2
(c) x/4
(d) x
Answer:
(d) x

Question 48.
Which of the following cannot serve as a vegetative propagule?
(a) A piece of potato tuber with eyes
(b) A middle piece of sugarcane internode
(c) A piece of ginger rhizome
(d) A marginal piece of Bryophyllum leaf
Answer:
(b) A middle piece of sugarcane internode

Question 49.
Which of the following options correctly identifies artificial and natural methods of vegetative propagation?
Artificial methods – Natural methods
(a) Grafting – Cutting
(b) Layering – Bulbils
(c) Offset – Tissue culture
(d) Tubers – Rhizomes
Answer:
(b) Layering – Bulbils

Question 50.
Sexual reproduction is considered more beneficial than asexual reproduction because
(a) it is not affected by adverse environmental conditions
(b) fertilization is a chance factor
(c) it rapidly multiplies the population
(d) it assists in evolution by producing variations.

Answer:
(d) it assists in evolution by producing variations.

Question 51.
Development of new individual from female gamete without fertilisation is termed as
(a) syngamy
(b) embryogenesis
(c) oogamy
(d) parthenogenesis.
Answer:
(d) parthenogenesis.

Question 52.
Fertilisation cannot occur in absence of surface water in
(a) Fucus
(b) Funaria
(c) Marsilea
(d) all of these.
Answer:
(d) all of these.

Question 53.
Spirogyra is a sexually reproducing alga in which vegetative thallus is haploid. In Spirogyra, meiosis
(a) never occurs
(b) occurs at time of gamete production
(c) occurs after fertilisation
(d) occurs during vegetative growth.
Answer:
(c) occurs after fertilisation

Question 54.
Life begin in all sexually reproducing organisms as a
(a) single-celled zygote
(b) double-celled zygote
(c) haploid zygote
(d) haploid gametes.
Answer:
(a) single-celled zygote

Question 55.
Which of the following is not correct regarding sexual reproduction ?
(a) It is usually biparental.
(b) Gametes are always formed.
(c) It is a slow process
(d) It involves only mitosis.
Answer:
(a) It is usually biparental.

Question 56.
Offsprings of oviparous animals are at greater risk of survival as compared to those of viviparous animals because
(a) proper embryonic care and protection is absent
(b) embryo does not develop completely
(c) progenies are of smaller size
(d) genetic variations do not occur.
Answer:
(a) proper embryonic care and protection is absent

Question 57.
Deposition of calcareous shell around zygote occurs in
(a) birds and reptiles
(b) birds and mammals
(c) mammals and reptiles
(d) all of these.
Answer:
(a) birds and reptiles

Question 58.
Select the option which shows viviparous animals only,
(a) Lizard, Turtile
(b) Platypus, Crocodile
(c) Cow, Crocodile
(d) Whale, Mouse
Answer:
(d) Whale, Mouse

Question 59.
Which of the following animals give birth to young ones?
(a) Ornithorhynchus and Echidna
(b) Macropus and Pteropus
(c) Balaenoptera and Homo sapiens
(d) Both (a) and (c)
Answer:
(d) Both (a) and (c)

Question 60.
Viviparity is found in
(a) Sharks
(b) lizards
(c) frogs
(d) birds
Answer:
(a) Sharks