RAVI MATHS TUITION CENTER , CHENNAI- 82. WHATSAPP - 8056206308

How Do Organisms Reproduce MCQ TEST

10th Standard

Science

66 x 1 = 66

1) Asexual reproduction takes place through budding in

(a) amoeba (b) yeast (c) plasmodium (d) leishmania

2) Which of the following is not a part of the female reproductive system in human beings?

(a) Ovary (b) Uterus (c) Vas deferens (d) Fallopian

3) The anther contains

(a) sepals (b) ovules (c) carpel (d) pollen grains

4) In this list of organisms given below, those that reproduce by the asexual method are
(i)banana
(ii)dog
(iii)yeast
(iv)amoeba

(a) (ii) and (iv) (b) (i), (iii) and (iv) (c) (i) and (iv) (d) (ii), (iii) and (iv)

5) In a flower, the parts that produce male and female gametes (germ cells) are

(a) stamen and anther (b) filament (c) anther and ovary (d) stamen and style

6) Which of the following is correct sequence of events of sexual reproduction in a flower?

(a) pollination, fertilisation, seedling, embryo (b) seedling, embryo, fertilisation, pollination

(c) pollination, fertilisation, embryo, seedling (d) embryo, seedling, pollination, fertilisation

7) Offspring formed by asexual method of reproduction have greater similarity among themselves because
(i)asexual reproduction involves only one parent
(ii)asexual reproduction does not involve gametes
(iii)asexual reproduction occurs before sexual reproduction
(iv)asexual reproduction occurs after sexual reproduction

(a) (i) and (ii) (b) (i) and (iii) (c) (ii) and (iv) (d) (iii) and (iv)

8) Characters transmitted from parents to offspring are present in

(a) cytoplasm (b) ribosome (c) golgi bodies (d) genes

9) Characters that are transmitted from parents to offspring during reproduction show

(a) only similarities with parents (b) only variations with parents

(c) both similarities and variations with parents (d) neither similarities nor variations

10) A feature of reproduction that is common Amoeba, Spirogyra and Yeast is that

(a) they reproduce asexually (b) they are all unicellular (c) they reproduce only sexually

(d) they are all multicellular

11) In Spirogyra, asexual reproduction takes place by

(a) breaking up of filaments into smaller bits (b) division of a cell into two cells

(c) division of a cell into many cells (d) formation of Young cells from older cells

12) The ability of a cell to divide into several cells during reproduction in Plasmodium is called

(a) budding (b) reduction division (c) binary fission (d) multiple fission

13) The correct sequence of reproductive stages seen in flowering plants is

(a) gametes, zygote, embryo, seedling (b) zygote, gametes, embryo, seedling

(c) seedling, embryo, zygote, gametes (d) gametes, embryo, zygote, seedling

14) The number of chromosomes in parents and offspring of a particular species remains constant due to

(a) doubling of chromosomes after zygote formation

(b) halving of chromosomes during gamete formation

(c) doubling of chromosomes after gamete formation

(d) halving of chromosomes after gamete formation

15) InRhizopus, tubular thread-like structures bearing sporangia at their tips are called

(a) filaments (b) hyphae (c) rhizoids (d) roots

16) Vegetative propagation refers to formation of new plants from

(a) stem, roots and flowers (b) stem, roots, and flower (c) stem, flowers and fruits

(d) stem, leaves and flowers

17) Factors responsible for the rapid spread of bread mould on slices of bread are
(i)large number of spores
(ii)availability of moisture and nutrients in bread
(iii)presence of tubular branched hyphae
(iv)formation of round shaped sporangia

(a) (i) and (iii) (b) (ii) and (iv) (c) (i) and (ii) (d) (iii) and (iv)

18) Length of pollen tube depends on the distance between

(a) pollen grain and upper surface of stigma (b) pollen grain on upper surface of stigma and ovule

(c) pollen grain in anther and upper surface of stigma

(d) upper surface of stigma and loer part of style

19) Which of the following statement are true for flowers?
(i)Flowers are always bisexual
(ii)They are the sexual reproductive organs
(iii)They are produced in all groups of plants
(iv)After fertilisation they give rise to fruits

(a) (i) and (iv) (b) (ii) and (iii) (c) (i) and (iii) (d) (ii) and (iv)

20) Which among the following statements are true for unisexual flowers?
(i)They possess both stamen and pistil
(ii)They possess either stamen or pistil
(iii)They exhibit cross pollination
(iv)Unisexual flowers possessing only stamens cannot produce fruits

(a) (i) and (iv) (b) (ii), (iii) and (iv) (c) (iii) and (iv) (d) (i), (iii) and (iv)

21) Which among the following statements are true for sexual reproduction in flowering plants?
(i)It requires two types of gametes
(ii)Fertilisation is a compulsory event
(iii)It always results in formation of zygote
(iv)Offspring formed are clones

(a) (i) and (iv) (b) (i), (ii) and (iv) (c) (i), (ii) and (iii) (d) (i), (ii) and (iv)

22) Offspring formed as a result of sexual reproduction exhibit more variations because

(a) sexual reproduction is a lengthy process

(b) genetic material comes from two parents of the same species

(c) genetic material comes from two parents of different species

(d) genetic material comes from many parents

23) Reproduction is essential for living organisms in order to

(a) keep the individual organism alive (b) fulfill their energy requirement (c) maintain growth (d) continue the species generation after generation

24) During adolescence, several changes occur in the human body.Mark one change associated with sexual maturation in boys

(a) loss of milk teeth (b) increase in height (c) cracking of voice (d) weight gain

25) In human females, an event that reflects onset of reproductive phase is

(a) growth of body (b) changes in hair pattern (c) change in voice (d) menstruction

26) During adolescence, several changes occur in the human body.Mark one change associated with sexual maturation in boys

(a) loss of milk teeth (b) increase in height (c) cracking of voice (d) weight gain

27) In human males, the testes lie in the scrotum because it helps in the

(a) process of mating (b) formation of sperm (c) easy transfer of gametes (d) all the above

28) Which among the following is not the function of testes at puberty?
(i)formation of germ cells
(ii)secretion of testosterone
(iii)development of placenta
(iv)secretion of estrogen

(a) (i) and (ii) (b) (ii) and (iii) (c) (iii) and (iv) (d) (i) and (iv)

29) Which among the following diseases is not sexually transmitted?

(a) Syphilis (b) Hepatitis (c) HIV-AIDS (d) Gonorrhoea

30) The simple animals like Plana ria can be cut into a number of pieces and each piece grows into a complex organism. What is the process known as?

(a) Budding (b) Fragmentation (c) Spore formation (d) Regeneration

31) ____ is the portion on which grafting is done and it provides the roots

(a) Stock (b) Scion (c) Both (a) and Cb) (d) None of these

32) Where does fertilisation occur in human females

(a) Uteru (b) Cervix (c) Oviduct (d) None of these

33) Which one of the options is incorrect? Vegetative propagation is practised because

(a) Plants which produce non viable seeds can be grown. (b) It is a easier method than sowing seeds.

(c) Such plants produce seeds and fruits much earlier than other methods

(d) For obtaining better species of plants.

34) What is the surgical method of contraception in female and male respectively

(a) Tubectomy and Vasectomy (b) Vasectomy and Copper-T (c) Tubectomy and Copper-T

(d) None of these

35) Growing foetus derive nutrition from mother's blood through

(a) uterus (b) fallopian tube (c) placenta (d) cervix

36) Which of the following is not a sexually transmitted disease

(a) Warts (b) Kala azar (c) Syphilis (d) Gonorrhoea

37) What is the puberty age in human males?

(a) 8-10 (b) 10-12 (c) 12-14 (d) 14-16

38) Fruit is formed from

(a) Stamen (b) Stigma (c) Ovary (d) Ovule

39) Which of these is not the function of the seminal vesicles present in human males?

(a) To covert the sperms in a fluid medium. (b) To provide nutrition.

(c) To make their transport easier. (d) To make them sticky.

40) The female reproductive part of the flower consists of

(a) Stigma, Anther, Filament (b) Style, Ovary, Thalamus (c) Stigma, Ovary, Style

(d) Anther, Corolla, Filament

41) In which of the following plant bud in notches of leaves help in its propagation?

(a) Radish (b) Bryophyllum (c) Bougainvillea (d) Jasmine

42) The process of the transfer of pollen grains from the flower of one plant to the stigma of the flower of another plant of the same species is known as

(a) Cross pollination (b) Fertilisation (c) Self pollination (d) None of the above

43) What are the functions performed by the testis in human males

(a) Production of gametes-eggs and secretion of sex hormones-estrogen

(b) Production of gametes-sperms and secretion of sex hormones-testosterone

(c) Production of gametes-sperms and secretion of sex hormones-estrogen (d) None of the above

44) Why are the testes located outside the abdominal cavity in scrotum

(a) Because sperm formation requires more spaces.

(b) Because sperm formation requires a lower temperature

(c) Because sperm formation requires a higher temperature. (d) None of the above.

45) IUCD is for

(a) Vegetative propagation (b) Contraception (c) Increasing fertility (d) Avoiding miscarriage

46) The two oviducts in a human female unite into an elastic bag like structure known as

(a) Vagina (b) Uterus (c) Fallopian tube (d) Cervix

47) Which of the following disease is transmitted sexually?

(a) Kala azar (b) Jaundice (c) Elephantiasis (d) Syphilis

48) Which of the following is a contraceptive?

(a) Copper-T (b) Condom (c) Diaphragm (d) All of these

49) The process where the unfertilised egg is released out of the body with the blood used to nourish the embryo is known as

(a) Menstruation (b) Fertilisaytion (c) Germination (d) Pollination

50) After fertilisation name the part which develops into the seeds

(a) Ovary (b) Ovule (c) Pollen grain (d) None of the above

51) Unisexual flowers contain

(a) Both stamen and carpel (b) Only stamen (c) Only carpel (d) Either stamen or carpel

52) Spirogyra reproduces by

(a) Fission (b) Regeneration (c) Fragmentation (d) Budding

53) The process in which the cytoplasm of a single eukaryotic cell is divided to form two daughter cells is known as?

(a) Karyokinesis (b) Cytokinesis (c) Meiosis (d) Mitosis

54) Unicellular organisms reproduce by

(a) Mitotic cell division (b) Meiotic cell division (c) Both (a) and (b) (d) None of the above

55) What is the surgical method of contraception used in human males?

(a) Vasectomy (b) Condoms (c) Contraceptive pills (d) Tubectomy

56) Vegetative propagation in potato takes place through

(a) Stem (b) Root (c) Leaves (d) Seeds

57) The full form of AIDS is

(a) Acquired Immune Deficiency System (b) Acquired Immune Disease Syndrome

(c) Acquired Immediate Deficiency Syndrome (d) Acquired Immuno Deficiency Syndrome

58) Union of male and female gametes forms

(a) Egg (b) Embryo (c) Zygote (d) Spore

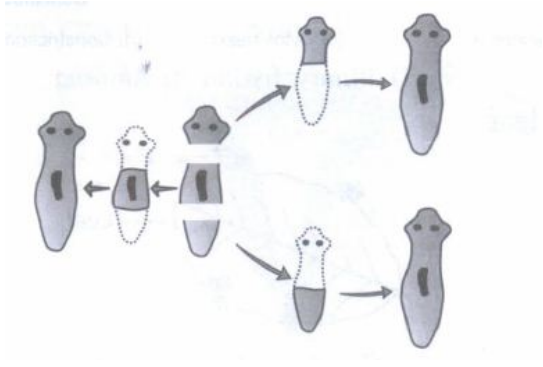
59) The number of chromosomes in human ovum is

(a) 21 (b) 22 (c) 23 (d) 24

60) The common passage meant for transporting urine and sperms in males is

(a) Ureter (b) Vas deferens (c) Urethra (d) Anus

61) The type of reproduction taking place is



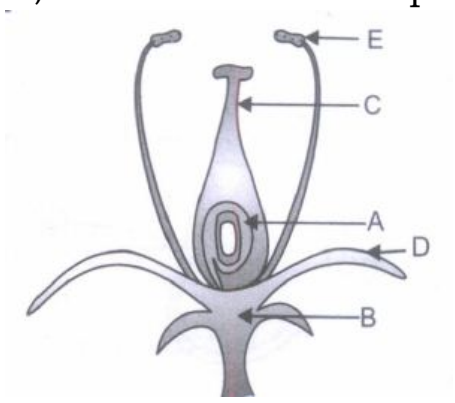
(a) Budding (b) Fragmentation (c) Regeneration (d) Fission

62) Identify the type of cell division taking

(a) Longitudinal cell division taking place (b) Transversal cell division in Paramecium

(c) Longitudinal cell division in Paramecium (d) Transversal cell division in Amoeba

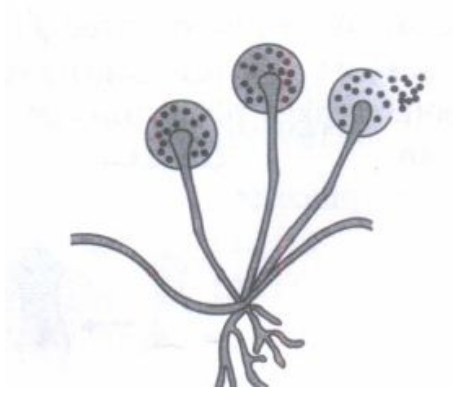
63) Chose the correct option



(a) Ovary Thalamus Filament Sepal Anther (b) Ovary Thalamus Style Sepal Anther

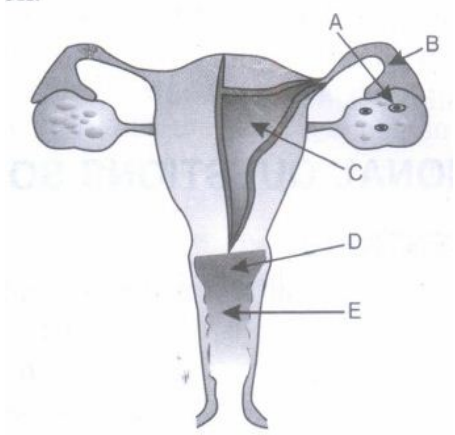
(c) Ovule Sepal Style Thalamus Filament (d) Ovule Sepal Style Thalamus Stamen

64) Identify the organism



(a) Rhizobium (b) Rhizopus (c) Rhizoid (d) Mushroom

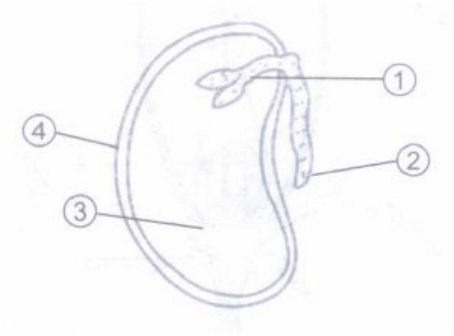
65) Choose the right option.



(a) Fallopian tube Oviduct Uterus Cervix Vagina (b) Oviduct Vas deferens Ovary Vagina Cervix

(c) Ovary Oviduct Uterus Cervix Vagina (d) Ovary Fallopian tube Uterus Vagina Cervix

66)



(a)

1	2	3	4
Plumule	Radicle	Cotyledon	Seed coat

(b)

1	2	3	4
Radicle	Plumule	Seed coat	Cotyledon

(c)

1	2	3	4
Cotyledon	Seed coat	Radicle	Plumule

(d)

1	2	3	4
Radicle	Plumule	Cotyledon	Seed coat

25 x 1 = 25

67) **Assertion:** The DNA in the cell nucleus is the information source for making proteins.
Reason: The change in information makes different protein and leads to altered body design.
Codes
(a) If both assertion and reason are true and the reason is correct explanation of assertion.
(b). If both assertion and reason are true but reason is not a correct explanation of assertion.
(c) If assertion is true and reason is false.
(d) If both assertion and reason are false.

68) **Assertion:** Cells use chemical reactions to build copies of their DNA.
Reason:. These copies are used to form new cells.
Codes
(a) If both assertion and reason are true and the reason is correct explanation of assertion.
(b). If both assertion and reason are true but reason is not a correct explanation of assertion.
(c) If assertion is true and reason is false.
(d) If both assertion and reason are false.

69) **Assertion:** Variation is useful for the survival of species over time.
Reason: Variations in individuals would bring some chance for them to survive in any disaster
Codes
(a) If both assertion and reason are true and the reason is correct explanation of assertion.
(b). If both assertion and reason are true but reason is not a correct explanation of assertion.
(c) If assertion is true and reason is false.
(d) If both assertion and reason are false.

70) **Assertion:** If the DNA copying mechanisms were to be less accurate, many of the resultant DNA copies would not be able to work with the cellular apparatus, and would die.
Reason: Combining variations from two or more individuals would create new combinations of variants that are novel.
Codes
(a) If both assertion and reason are true and the reason is correct explanation of assertion.
(b). If both assertion and reason are true but reason is not a correct explanation of assertion.
(c) If assertion is true and reason is false.
(d) If both assertion and reason are false.

71) **Assertion**: The female germ cell is called an egg and it contains the stored energy.
Reason: The egg contains energy in the form of stored food.
Codes
(a) If both assertion and reason are true and the reason is correct explanation of assertion.
(b). If both assertion and reason are true but reason is not a correct explanation of assertion.
(c) If assertion is true and reason is false.
(d) If both assertion and reason are false

72) **Assertion**: Stamen is the female reproductive part of the flower.
Reason: It produces pollen grains that are yellowish in colour and are female gametes.
Codes
(a) If both assertion and reason are true and the reason is correct explanation of assertion.
(b). If both assertion and reason are true but reason is not a correct explanation of assertion.
(c) If assertion is true and reason is false.
(d) If both assertion and reason are false

73) **Assertion**: When a girl is born, the ovaries already contain thousands of immature eggs
Reason: One egg is produced every month by one of the ovaries.
Codes
(a) If both assertion and reason are true and the reason is correct explanation of assertion.
(b). If both assertion and reason are true but reason is not a correct explanation of assertion.
(c) If assertion is true and reason is false.
(d) If both assertion and reason are false

74) **Assertion:** The ovary releases one egg every month.
Reason: This process is repeated every month and is called menstruation.
Codes
(a) If both assertion and reason are true and the reason is correct explanation of assertion.
(b). If both assertion and reason are true but reason is not a correct explanation of assertion.
(c) If assertion is true and reason is false.
(d) If both assertion and reason are false

75) **Assertion:** Cell division is a type of reproduction in unicellular organisms.
Reason: It leads to formation of two daughter cells which means it produces more individual.
Codes
(a) If both assertion and reason are true and the reason is correct explanation of assertion.
(b). If both assertion and reason are true but reason is not a correct explanation of assertion.
(c) If assertion is true and reason is false.
(d) If both assertion and reason are false

76) **Assertion:** Asexual reproduction is seen in small organisms
Reason: Budding is one type of asexual reproduction.
Codes
(a) If both assertion and reason are true and the reason is correct explanation of assertion.
(b). If both assertion and reason are true but reason is not a correct explanation of assertion.
(c) If assertion is true and reason is false.
(d) If both assertion and reason are false

77) **Assertion:** Regeneration is getting a fullorganism back from its body parts.
Reason: Hydra and Planaria show regeneration.
Codes
(a) Both A and R are true and R is correct explanation of the assertion.
(b) Both A and R are true but R is not the correct explanation of the assertion.
(c) A is true but R is false.
(d) A is false but R is true.

78) **Assertion:** Stock is the lower part of a plant having the roots.
Reason: In grafting, the stock is placed over the scion.
Codes
(a) Both A and R are true and R is correct explanation of the assertion.
(b) Both A and R are true but R is not the correct explanation of the assertion.
(c) A is true but R is false.
(d) A is false but R is true.

79) **Assertion:** All the sepals together are called corolla.
Reason: The function of sepals is to protect the flower in the bud stage.
Codes
(a) Both A and R are true and R is correct explanation of the assertion.
(b) Both A and R are true but R is not the correct explanation of the assertion.
(c) A is true but R is false.
(d) A is false but R is true.

80) **Assertion:** Fusion of gametes gives rise to a single cell called zygote.
Reason: Zygote is a fertilised ovum.
Codes
(a) Both A and R are true and R is correct explanation of the assertion.
(b) Both A and R are true but R is not the correct explanation of the assertion.
(c) A is true but R is false.
(d) A is false but R is true.

81) **Assertion**: Multiple fission produces many daughter cells simultaneously.
Reason: Multiple fission occurs during favourable conditions.
Codes
(a) Both A and R are true and R is correct explanation of the assertion.
(b) Both A and R are true but R is not the correct explanation of the assertion.
(c) A is true but R is false.
(d) A is false but R is true.

82) **Assertion:** Ovaries are the primary reproductive organs in a woman.
Reason: The function of ovaries is to make mature female sex cells and female sex hormones.
Codes
(a) Both A and R are true and R is correct explanation of the assertion.
(b) Both A and R are true but R is not the correct explanation of the assertion.
(c) A is true but R is false.
(d) A is false but R is true.

83) **Assertion:** Condom protects a person from the sexually transmitted diseases.
Reason: Condom prevents the sperms from meeting the ovum by acting as a barrier.
Codes
(a) Both A and R are true and R is correct explanation of the assertion.
(b) Both A and R are true but R is not the correct explanation of the assertion.
(c) A is true but R is false.
(d) A is false but R is true.

84) **Assertion:** Vaginal pills contain spermicides.
Reason: Spermicides kill the sperms.
Codes
(a) Both A and R are true and R is correct explanation of the assertion.
(b) Both A and R are true but R is not the correct explanation of the assertion.
(c) A is true but R is false.
(d) A is false but R is true.

85) **Assertion:** The testes are present outside the abdominal cavity of the body.
Reason: Sperm formation requires a lower temperature than the normal body temperature.
Codes
(a) Both A and R are true and R is correct explanation of the assertion.
(b) Both A and R are true but R is not the correct explanation of the assertion.
(c) A is true but R is false.
(d) A is false but R is true.

86) **Assertion:** Sexual reproduction leads to greater variety in population.
Reason: Sexual reproduction plays an important role in the origin of new species.
Codes
(a) Both A and R are true and R is correct explanation of the assertion.
(b) Both A and R are true but R is not the correct explanation of the assertion.
(c) A is true but R is false.
(d) A is false but R is true.

87) **Assertion**: Self-pollination occurs when the pollen grains from the anther of a flower are transferred to the stigma of same flower or another flower on the same plant.
Reason: Insects and wind help in autogamy.
Codes
(a) Both A and R are true and R is correct explanation of the assertion.
(b) Both A and R are true but R is not the correct explanation of the assertion.
(c) A is true but R is false.
(d) A is false but R is true.

88) **Assertion:** Potato tuber is used for the vegetative reproduction of potato plant.
Reason: Potato tuber is an underground stem of the potato plant.
Codes
(a) Both A and R are true and R is correct explanation of the assertion.
(b) Both A and R are true but R is not the correct explanation of the assertion.
(c) A is true but R is false.
(d) A is false but R is true.

89) **Assertion:** Spore formation is found in unicellular organisms only.
Reason: Rhizopus and Mucor reproduce by spore formation method.
Codes
(a) Both A and R are true and R is correct explanation of the assertion.
(b) Both A and R are true but R is not the correct explanation of the assertion.
(c) A is true but R is false.
(d) A is false but R is true.

90) **Assertion**: Seeds are matured ovules.
Reason: The part of seed which contains stored food for baby plant is called cotyledon.
Codes
(a) Both A and R are true and R is correct explanation of the assertion.
(b) Both A and R are true but R is not the correct explanation of the assertion.
(c) A is true but R is false.
(d) A is false but R is true.

91) **Assertion:** Internal fertilisation occurs in mammals and birds.
Reason: External fertilisation occurs in reptiles, amphibians and fishes.
Codes
(a) Both A and R are true and R is correct explanation of the assertion.
(b) Both A and R are true but R is not the correct explanation of the assertion.
(c) A is true but R is false.
(d) A is false but R is true.

18 x 4 = 72

92) There are two organisms X and Y that produce new offspring from single parent only.Organisms X when reaches its maximum growth, divides its body into two new organisms.
The parent organism does not exist any more and two new daughter organisms grow fully and divide again. Organism Y form a small outgrowth on its body called bud which detaches and develops into new organism .
Read the above paragraph and answer the questions that follow.
(I) Select the option that correctly identifies organisms X and Y.

	X	Y
(a)	**Amoeba**	**Yeast**
(b)	**Paramecium**	**Hydra**
(c)	**Leishmania**	**Sycon**

(d) All of these

(ii) Select the correct statement.

(a) Organism X reproduces asexually whereas organism Y reproduces sexually

(b) Organism X must be multicellular whereas organism Y should be unicellular

(c) Both organisms X and Y reproduce asexually

(d) Both organisms X and Yare always multicellular organisms

(iii) Identify the mode of reproduction in organisms X and Y.

(a) X - Multiple fission **(b) X - Binary fission**
Y - Binary fission **Y - Budding**
(c) X - Regeneration **(d) X - Fragmentation**
Y - Fragmentation **Y - Multiple fission**

(iv) Which of the following is incorrect?

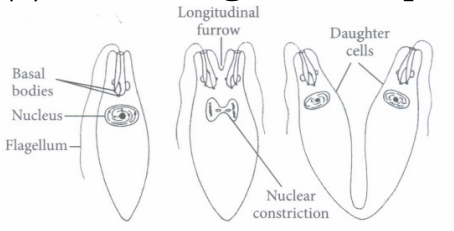
(a) Plasmodium reproduces by the same method as is adopted by organism X.

(b) Organism X could be any multicellular plant like Riccia, Sphagnum, etc.

(c) If organism Y is Hydra, then it may also reproduce through regeneration.

(d) Both (a) and (b)

(v) Which organism reproduces by the method shown in the given figure?



(a) Planaria (b) Amoeba

(c) Euglena (d) Paramecium

93) Spore formation, method of asexual reproduction is used by unicellular as well as multicellular organisms.Spores are microscopic units which could be air borne or are present in soil, etc.

(i) A slice of bread kept in open for sometime shows growing white cottony mass which later turns black. This happens because

(a) bacterial spores present in air germinate on the surface of bread slice

(b) fungal spores present in air germinate on the surface of bread slice

(c) protozoan microbes start feeding on bread slice

(d) none ef these.

(ii) Spore formation can be seen in

(a) Mucor (b) sweat potato

(c) Spirogyra (d) all of these

(iii) Bulb like structure at top of erect hyphae where spores are produced is

(a) sporangiophore (b) apophysis

(c) columella (d) sporangia.

(iv) Select the incorrect statement.

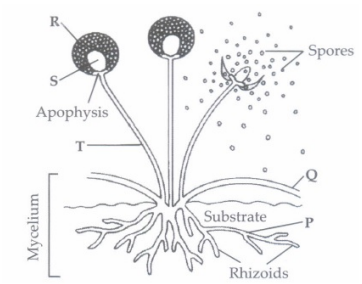
(a) Spores can be produced endogenously or exogenously in an organism.

(b) Spores can be air borne or soil borne.

(c) Bacteria produce only exospores.

(d) Rhizopus bears spores in special structures called sporangium.

(v) Observe the given figure showing spores formation in Rhizopus and select the option which is correctly labelled.



(a) P-Stolon, S-Columella, T-Sporangiophore

(b) Q-Stolon, P-Hypha, S-Sporangium

(c) R-Sporangium, S-Apophysis, T-Sporangiophore

(d) Q-Stolon, R-Sporangium, S-Colume!la

94) Radhika collected some pond water which was dark green in colour in a test tube. She took out green coloured mass from it and separated its filaments by using needles. She broke some filaments into small fragments and put them in a Petri dish containing clean water. She observed that after few days the small fragments gave rise to complete filaments.

(i) What do you think the mass of green filament was?

(a) It was a mass of Spirogyra filament

(b) It was a colony of Volvox algae

(c) It was kelp, i.e., large brown algae

(d) It was a mass of fungal filaments or hyphae.

(ii) The small fragment gave rise to new filament. What does it indicate?

(a) Spirogyra reproduces asexually through fragmentation

(b) Spirogyra reproduces asexually through vegetative propagation

(c) Spirogyra reproduces asexually through budding

(d) Spirogyra reproduces asexually through fission

(iii) Organism which reproduces in similar way as Spirogyra is

(a) yeast **(b) sea anemone**

(c) Entamoeba **(d) all of these.**

(iv) Select the correct statement.

(a) Only multicellular organisms can undergo fragmentation

(b) Both unicellular and multicellular organisms can undergo fragmentation

(c) Fragmentation is sexual mode of reproduction

(d) Fragmentation is found only in algae.

(v) Which among the given organisms do not reproduce by fragmentation?

(a) Riccia **(b) Selaginella**

(c) Aurelia **(d) Marchantia**

95) Preeti is very fond of gardening. She has different flowering plants in her garden. One day few naughty children entered her garden and plucked many leaves of Bryophyllum plant and threw them here and there in the garden. After few days, Preeti observed that new Bryophyllum plants were coming out from the leaves which fell on the ground.

(i) What does the incidence cited in the paragraph indicate?

(a) Bryophyllum leaves have special buds that germinate to give rise to new plant

(b) Bryophyllum can propagate vegetatively through leaves

(c) Bryophyllum is a flowering plant that reproduces only asexually

(d) Both (a) and (b)

(ii) Which of the following plants can propagate vegetatively through leaves like Bryophyllum?

(a) Guava **(b) Begonia**

(c) Ginger **(d) Mint**

(iii) Do you think any other vegetative part of Bryophyllum can help in propagation? If yes, then which part?

(a) Roots **(b) Stems**

(c) Flowers **(d) Fruits**

(iv) Which of the following plants is artificially propagated (vegetatively) by stem cuttings in horticultural practices?

(a) Potato **(b) Snake plant**

(c) Rose **(d) Water hyacinth**

(v) In which of the following pairs both the plants can be vegetatively propagated by leaf pieces?

(a) Adiantum and Kalanchoe **(b) Chrysanthemum and Agave**

(c) Agave and Dioscorea **(d) Bryophyllum and Asparagus**

96) Horticultural methods of vegetative propagation multiply desired varieties of plants quickly from parts of their somatic body. A horticulturist used stem cutting of plant X to propagate it in a short span of time. For plant Y, he pulled a branch of towards ground and covered it with soil leaving the tip of branch exposed. He later on cut the branch from parent plant. The former developed into new plant. He propagated plant Z through underground stems called tubers. Identify the propagation methods used by horticulturist and answer the following questions.

(i) What could be plants X, Y and Z?

	X	Y	Z
(a)	**Bougainvillea**	**Jasmine**	**Potato**
(b)	**Sugarcane**	**Ginger**	**Rose**
(c)	**Begonia**	**Banana**	**Chrysanthemum**
(d)	**Guava**	**Onion**	**Cactus**

(ii) Select the propagation methods in plants X, Y and Z.

(a) X - root tubers, Y - stem cutting, Z - stem tubers

(b) X - stem cutting, Y - layering, Z - underground stem

(c) X -layering, Y - underground stem, Z - underground roots

(d) X - grafting, Y - layering, Z - root tubers

(iii) Select the correct statement for plant Z if it is potato.

(a) Each tuber has many buds called ears

(b) It is necessary to plant the whole potato tuber in the soil to produce new potato plants

(c) Vegetative propagation of potato plants by tubers is much faster than production of potatoes by seeds

(d) All of these.

(iv) Select the plant which propagates by the same method adopted by gardener for plant Y, but naturally it propagates by stolons

(a) Strawberry **(b) Adiantum**

(c) Tulsi **(d) Both (a) and (b)**

(v) Identify the given vegetative propagule.

(a) Bulb **(b) Runner**

(c) Rhizome **(d) Bulbil**

97) A horticulturist took stems of two different plants; plant X with roots and plant Y without roots Y.He fixed the cut stem X in soil. He fitted and bound tightly the other cut stem Y over the surface of X. He fastened the joint properly with the help of polythene. The cut soon healed and the two plant stems (X and Y) grew together as one plant.

(i) What is not correct of regarding given horticulture practice?

(a) It enables to combine the most desirable characteristics of two plants.

(b) It can be used to produce superior varieties of plants.

(c) It is equally useful for both dicot and mono cot plants.

(d) All of these

(ii) What is stem X and stem Y respectively known?

(a) X - stock, Y - scion

(b) X - scion, Y - stock

(c) X - scion, Y - graft

(d) X - graft, Y - scion

(iii) Why is the area where two stems are joined is covered with polythene?

(a) To prevent harmful infection by bacteria or fungus

(b) To prevent the loss of water and plant sap from the cut and joined ends of the stems

(c) To prevept CO_2 and sunlight from entering the joint

(d) Both (a) and (b)

(iv) Select the incorrect option regarding the horticultural practice mentioned in the given paragraph.

(a) The technique mentioned in the given paragraph is known as grafting

(b) While joining the two stem cuttings, cambium of both stems should be aligned so that the joint is healed properly

(c) This technique is used to breed fruit trees and flowering bushes

(d) The shoot system of the plant is always older than the root system.

(v) The given practice is used in which of the following plants?

(a) Apple **(b) Spinach**

(c) Coriander **(d) Mint**

98) In an experiment, a scientist removed some cells from the growing point of a plant and placed it a suitable medium containing nutrients and plant hormones leading to the formation of shapeless lump or mass called X. X is then transferred to another medium which lead to development of roots. X with developed roots is then transferred into another medium that induced the development of shoots. X in this way differentiated into tiny plantlets which were transplanted into pots where they grew into mature plants.

(i) What is X in the given paragraph?

(a) Plantlet **(b) Callus**

(c) Embryoid **(d) Tissue**

(ii) Which technique has the scientist used for the propagation of plant?

(a) Layering **(b) Grafting**

(c) Tissue culture **(d) Cutting**

(iii) What is the advantage of the technique mentioned in the paragraph?

(a) It helps in production of disease free plants

(b) It is a very fast technique as thousand of plantlets can be produced in a few weeks time

(c) It is also known as micropropagation due to extremely small amount of plant material used for propagation

(d) All of these.

(iv) Select the incorrect statement regarding the propagation technique mentioned in the paragraph.

(a) It is used in the production of ornamental plants like orchids, carnation, Chrysanthemum, etc

(b) It is a modern method of artificial propagation of plants

(c) Plants produced by this methods are genetically different from the parent plant

(d) Very little space is needed for developing new plants by this technique.

(v) Which of the following statements is incorrect?

(a) Virus free plants cannot be produced by tissue culture technique

(b) Tissue culture technique is useful in obtaining homozygous diploid

(c) Tissue culture is useful in quick propagation of Gladiolus

(d) Tissue culture is artificial method of vegetative propagation.

99) Ruchika planted three plants X, Y and Z of different species of flowering plant in her garden. After sometime she observed that fruit development occurred in plant X and Z but not in plant Y. She also observed that plant Z has two slightly different types of flowers.

(i) Why do you think fruit formation did not take place in plant Y?

(a) Plant Y is a cross pollinated plant having only female flowers

(b) Plant Y is a cross pollinated plant having only male flowers

(c) Plant Y is a monoecious plant having male and female organs in separate structure

(d) Plant Y is a self pollinated plant having anther and stigma is in the same flower.

(ii) Which of the following correctly identifies plant X, Y and Z?

	X	Y	Z
(a)	**Date palm**	**Maize**	**Watermelon**
(b)	**Papaya**	**Maize**	**Mulberry**
(c)	**Hibiscus**	**Date palm**	**Papaya**
(d)	**Asparagus**	**Ocimum**	**Cucurbit**

(iii) Select the correct statement.

(a) Plant X could be self pollinated or cross pollinated

(b) Plant Y must be self pollinated whereas plant Z is cross pollinated

(c) Plant Y is cross pollinated and plant Z is either self pollinated or cross pollinated

(d) Both (a) and (c).

(iv) Which of the following holds false for plants X, Y and Z?

(a) If Ruchika covers all the male flowers of plant Z then only cross pollination is possible in plant Z

(b) Flowers of plant X are always bisexual and incomplete

(c) Plant Z is self pollinated if it is cucurbit but it is cross pollinated if it is pumpkin

(d) Plant Y lacks pistils or female reproductive part of plant and produces pollens in large numbers.

(v) Select the correct statement.

(a) Plant Y always requires another plant of same species but of opposite sex for pollination

(b) Plant Y always needs a pollinating agent

(c) The process offertilisation never takes place in plant Y

(d) All of these.

100) P and Q are two monoecious plants. P bears bisexual flowers whereas Q bears unisexual flowers. P does not need a pollinating agent whereas pollinating agent is required in case of Q.

(i) Select the option that correctly identifies plant P and Q.

(a) P - Papaya, Q - Marigold

(b) P - Pea, Q - Cucurbit

(c) P - Sunflower, Q - Orchids

(d) P - Tulip, Q - Daffodil

(ii) Select the correct option regarding plants P and Q.

(a) Seed setting is assured in plant P even if all its flowers are emasculated

(b) Male flowers of plant Q always open only after the female flowers of the plant are pollinated

(c) Female flowers of plant Q can reproduce by cross pollens or self pollens depending upon the genus to which plant Q belongs to

(d) P is a cross pollinated plant whereas Q is a self pollinated plant

(iii) How can self pollination be avoided in plant P?

(a) By removing all the flowers of plant P

(b) By removing all the anthers of all the flowers

(c) By removing all the carpels of all the flowers

(d) None of these

(iv) Which of the following holds true for plant Q?

(a) Plant Q bears complete flowers

(b) Plant Q bears either male flowers or female flowers but never both

(c) Sexual reproduction in plant Q mayor may not give rise to genetic variations

(d) All of these

(v) Select the correct statement.

(a) Flowers of plant P produce large number of pollen grains as compared to flowers of plant Q

(b) Sexual reproduction in plant P does not bring variations

(c) Sexual reproduction in plant P often gives rise to new varieties due to accumulation of genetic variations

(d) Both (a) and (b)

101) When a human female reaches the age of puberty, a sexual cycle starts which is marked by vaginal bleeding for few days at regular time interval.

(i) What is the sexual cycle in human female that is taking place in reproductive organs in every 28 days andmarked by bleeding?

(a) Breeding cycle **(b) Oestrous cycle**

(c) Menstrual cycle **(d) Reproductive cycle**

(ii) What is the scientific term used for the vaginal bleeding occurring in females at regular interval?

(a) Implantation **(b) Menstruation**

(c) Ovulation **(d) Fertilisation**

(iii) What is the duration of menstrual cycle in human females?

(a) 10 days **(b) 15 days**

(c) 60 days **(d) 28 days**

(iv) Why does vaginal bleeding occur in human females on attaining puberty?

(a) Unfertilised egg along with thick uterus lining come out of vagina in form of bleeding

(b) In human females, ovaries start releasing egg or ovum once every 28 days from the age of puberty.

(c) If fertilisation does not occur then menstrual flow occurs at the end of cycle

(d) All of these

(v) In what conditions vaginal bleeding will not occur in a human female who has attained puberty?

(a) If the female gets pregnant

(b) If there is some hormonal imbalance in female

(c) If the ovum is not fertilised

(d) Both (a) and (b)

102) A newly married couple does not want have children for few years. They consulted a doctor who advised them barrier method and chemical method of birth control. Yet another couple who already have two children and are middle aged also consulted doctor for some permanent solution to avoid unwanted pregnancy. Doctor advised them surgical method of birth control.

(i) What are the barrier methods of birth control?

(a) Condom (b) Diaphragm

(c) Oral pills (d) Both (a) and (b)

(ii) How physical barrier prevent pregnancy?

(a) They kill the sperms

(b) They kill the ovum

(c) They prevent sperms from meeting the ovum

(d) They prevent intercourse

(iii) How chemical methods prevent pregnancy?

(a) Vaginal pills contain chemical called spermicides which kill the sperms

(b) Oral pills prevent ovulation so there will be no fertilisation

(c) Oral pills stop menstruation in females

(d) Both (a) and (b)

(iv) Select the correct statement regarding surgical method of birth control.

(a) It involves termination of pregnancies in women particularly after eight weeks of conception

(b) Small portion of sperm duct or vas deferences in males is removed by surgical operation and both cut ends are ligated properly

(c) Small portion of oviducts in females is removed by surgical operation and cut ends are ligated

(d) Both (b) and (c)

(v) Select the correct statement regarding birth control methods.

(a) Barrier method of birth control also protects the couple from sexually transmitted diseases

(b) Some women experience unpleasant side effects on taking oral pills because of change in hormonal balance in body