BIOLOGY

BOOKS - S CHAND BIOLOGY (HINGLISH)

HOW DO ORGANISMS REPRODUCE

Exercise

1. Which life process ensures that a plant or animal species will not disappear from this

earth

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2. What is the name of the reproductive process :

(a) which involves two parents

(b) which involves only one parent?

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3. State wheter the following statement is true of false :

Spors prouduced by the bread mould plant are actually its seeds.

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4. Most of the plants reproduce by sexual method. Name two plants which can reprodue asexually.

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5. Which type of reproduction :

(a) involves gametes?

(b) does not involve gametes?

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6. State whether human beings reproduce by sexual method or asexual method

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7. (a) Name two animals which reproduce sexually.

(b) Name two animals which reproduce asexually.

8. Name one organism which reproduces by spore formation

9. Name the method by which Paramecium reproduces. Is this method sexual or asexual?

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10. Name two plants :

(a) which can be grown from their broken stems.

(b) which can be grown from their their leaves.

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11. Name the asexual method or reproduction in yeast.

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12. Name the asexual method of reproduction in (a) Hydra, and (b) Plasmodium.

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13. What is the name of asexual reproduction method in :

(i) Spirogyra, and (ii) Leishmania?

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14. Name the artificial propagation method used for the propagation of (a) rose plants and (b) apple trees.

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15. Name the natural method by which strawberry plants are propagated.

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16. Write down the different methods of sexual reproduction.

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17. Why are budding, fragmentation and regeneration, all considered to be asexual type of reproduction?

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18. Explain vegetative propagation with the help or two examples. List two advantages of vegetative propagation.

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19. Asexual reproduction is :

A. A fusion of specialised cells

B. a method by which all types of organisms reproduce

C. a method producing genetically identical offspring

D. a method in which more than one parent are involved

Answer: C

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20. One of the following organisms does reproduce by regular/simple binary fission. This is :

A. Amoeba

B. Plasmodium

C. Leishmania

D. Paramecium

Answer: A

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21. The micro-organism which reproduces by multiple fission is the one which causes the disease the disease known as :

A. Kala-azar

B. marasmus

C. malaria

D. amoebiasis

Answer: C

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22. The protozoan having a flagellum at its one end is:

A. Amoeba

B. Paramecium

C. Hydra

D. Leishmania

Answer: D

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23. In the list of organisms given , those which reproduce by the asexual method are:

(i) banana (ii) yak (iii) yeast (iv) Amoeba

A. (ii) and ((iv)

B. (i),(iii) and (iv)

C. (i) and (iv)

D. (ii),(iii) and (iv)

Answer: B

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24. One of the following organisms does not reproduce by budding . This is :

A. Sponge

B. Yeast

C. Hydra

D. Planaria

Answer: D

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25. The disease kala-azar is caused by a micro-organism know as :

A. Planaria

B. Leach

C. Leishmania

D. Plasmodium

Answer: C

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26. Reproduction is essential for living organisms to order to

A. keep the individual organ alive

B. fulfil their energy requirements

C. maintain growth

D. continue the species forever

Answer: D

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27. The unicellular organisms which reproduces by budding is :

A. Spirogyra

B. Hydra

C. Planaria

D. Yeast

Answer: D

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28. A multicellular which reproduces by budding is :

A. Amoeba

B. Yeast

C. Leishmania

D. Hydra

Answer: D

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29. The offsprings formed by asexual reproduction method have greater similarity among themselves because :

(i) asexual reproduction involves only one parent

(ii) asexual reproduction involves two parents

(iii) asexual reproduction involves gametes

(iv) asexual reproduction involves does not involve gametes

A. (i) and (ii)

B. (i) and (iii)

C. (ii) and (iv)

D. (i) and (iv)

Answer: D

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30. A simple multicellular animal having tentacles which lives in freshwater usually reproduces by the asexual process of

A. binary fission

B. spore formation

C. budding

D. fragmentation

Answer: C

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31. One of the following des not reproduces by spore formation method. This is :

A. Rhizopus fungus

B. Penicillium fungus

C. Yeast fungus

D. Mucor fungus

Answer: C

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32. The factors responsible for the rapid spreading of beard mould on slices bread are:

(i) Presence of large number of spores in air

(ii) Presence of large number of thread-like

branched hyphae

(iii) Presence of mositrue and and nutrients

(iv) formation of round shaped sporangia

A. (i) and (ii)

B. (i) and (iv)

C. (i) and (ii)

D. (ii) and (iv)

Answer: A

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33. One of the following reproduces by forming spores. This is :

A. Feam

B. Planaria

C. Spirogyra

D. Potato

Answer: A

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34. Asexual reproduction through budding takes place in :

(i) Amoeba (ii) Yeast and Hydra (iii) Hydra and Plasmodium (iv) Corals and Sponges

A. (i) and (ii)

B. only (ii)

C. (i) and (iii)

D. (ii) and (iv)

Answer: D

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35. A feature of reproduction that is cammon to Amoeba, Yeast and Bacterium is that :

A. they are all multicellular

B. they are all unicellular

C. they reproduce only sexually

D. they reproduces asexually

Answer: D

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36. One of the following organisms does not reproduces by fission. This is :

A. Amoeba

B. Leishmania

C. Planaria

D. Plasmodium

Answer: C

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37. An organism which may be considered to be a kind of plant and reprodues by budding is :

A. Paramecium

B. Bread mould

C. Hydra

D. Yeast

Answer: D

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38. An animal which reproduction takes plce by

:

A. Plasmodium

B. Yeast

C. Hydra

D. Planaria

Answer: C

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39. In Spirogyra, asexual reproduction takes place by

A. division of a cell into two cells

B. breaking up of filaments into smaller bits

C. division of a cell into two cells many cells

D. formation of a large number of buds

Answer: B

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

A. budding

B. fragmentation

C. binary fission

D. mulpiple fission

Answer: D

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41. In Rhizopus fungus, the fine thread-like structures spread on the whole surface of slice of bread are called :

A. rhizoids

B. stems

C. roots

D. hyphae

Answer: D

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42. Vegetative propagation refers to formation of new plants from

A. steams, roots and flowers

B. stems, roots and leaves

C. stem, flowers and fruits

D. stems, leaves and flowers

Answer: B

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43. The two organisms which can regenerate fully from their cut body parts are :

A. Paramecium and Hydra

B. Hydra and Amoeba

C. Planaria and Leishmania

D. Hydra and Planaria

Answer: D

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44. The two types of organisms which produces colonies by the process of budding are :

A. Hydra and Corals

B. Yeast and Sponges

C. corals and Sponges

D. Hydra and Yeast

Answer: C

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45. Spore formation is the most cammon asexual method of reproduction in :

A. Protozoa

B. tubers

C. fungi

D. algae

Answer: C

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46. An alga which reproduces by the asexual reproduction method called fragmentation is :

A. Rhizopus

B. Salmonella

C. Plasmodium

D. Spirogyra

Answer: D

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47. The organisms which can reproduce by fragmentation are :

A. Corals and Sponges

B. Corals and Spirogyra

C. Sea anemone and Spirogyra

D. Sponges and Sea anemones

Answer: C

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48. Binary fission descibes the type of reproduction wher the organism divides to from :

A. many spores

B. two daughters

C. many buds

D. two hyphae

Answer: B

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49. The cut part of stem (without roots) which is used in the process of grarfting is known as :

A. stock

B. stump

C. scion

D. graft

Answer: C

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50. The cut part of stem (having roots and fixed to ground) which is used in the process of grafting is known as :

A. stock

B. scion

C. cutting

D. bud

Answer: A

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51. Multiple fission occurs in one of the following . This is :

A. bread mould

B. kala-azar parasite

C. flatworm

D. malaria parasite

Answer: D

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52. An organism having a whip-like structrue at one which reproduces by the process of binary fission is :

A. Hydra

B. Paramecium

C. Leishmania

D. Plasmodium

Answer: C

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53. An organism which can by two asexual reproduction methods one similar to the reproduction in yeast ladn the other similar to the reproduction in Planaria is :

A. Sprogyra

B. Bryophyllum

C. Hydra

D. Sea anemone

Answer: C

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54. Stock and scion are involved in the artificial method known as :

A. tissue culture

B. layering

C. grafting

D. cuttings

Answer: C

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55. In sexual reproduction , two offspring having the genetic material and the same body features are called.

A. callus

B. twins

C. clones

D. chromosomes

Answer: C

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56. The method of asexual reproduction in plants in which callus is produces is:

A. micropropagation/ tissue culture

B. vegetative propagation

C. regeneration

D. fragmentation

Answer: A

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57. Where are a plant's sex organs located?

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58. What is the function of a flower?

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59. What are the reproductive organs in a flower?

Watch Video Solution

60. What is the name of :

(a) male part of flower?

(b) female part of a flower ?

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61. What is the name of female organ of a flower (other than carpel)?

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62. What is the other name of sex cells?

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63. What is the name of sex cells (other than gametes)?

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64. Name the male and female gametes in animals

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65. Where is the male gamete formed :

(i) in humans?

(ii) in flowering plants ?

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66. Where is the female gamete formed :

(i) in humans? (ii) in flowering plants ?

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67. Name two animals which undergo external fertilisation and two animals which undergo internal fertilisation ?

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68. Define sexual reproduction

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69. Do all organisms give birth to individuals like humans?

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70. Write the full forms of the following as they occur in biology:

(i) STD (ii) AIDS (iii) HIV

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71. What are the causative organism for the following diseases ?

(i) Gonorrhoea (ii) Syphilis (iii) AIDS

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72. What are the organs in humans which produces the gametes ?

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73. (a) What are the male sex cells in humans called ?

(b) Name the organ which produces male sex cells.

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74. (a) What are the female sex cells in humans called ?

(b) Name the organ which produces female sex cells.

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75. Which part of the human body :

(a) produces sperms ?

(b) produces ova?

(c) passes sperms from a man to a woman ?

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76. (a) What do the testes in a man produce?

(b) What do the ovaries in a woman produce?

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77. (a) Where in the human body and ovum get fertilised ?

(b) Where does a fertilised ovum develop into a baby in the human body?

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78. Name the liquid that contains sperms

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79. What is the name of the process in which thickened uterus lining along with blood vessels is removed from the body of a human female through vaginal bleeding ?

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80. (a) For how much time does menstruation last in females (or women) ?

(b) What is the frequency of menstrual cuycle in human females (or women) ?

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81. Fill in the following blanks with suitable words :

Pollen grains contain .....gametes fo a plant.

(b) Ovules contain ..... gametes of a plant

(c) The ovary of a flower becomes .....after fertilisation.

(d) The ovule becomes a ..... after fertilisation.

(e) Flowering plants reproduce by ..... method of reproduction

(f) The female organ of reproduction in the flower is the .....

(g) The male organ of reroduction in the flower is the.....

(h) The name of the structue in the flower in which the male gamete is formed is.....

(i) The ..... at the base of the carple contains egg cell.

(j) The term used to refer to the transfer of pollen from the stamen of one flowr to the carpel of another flower of the same species is .....

(k) The cells involved in sexual reproduction

are called.....

(l) Fussion of gametes gives rist to a single cell called.....

(m) The process of fussion of gametes is called .....

(n) A multicellular animal starts its life from a ..... through sexual reproduction.

(o) The union of a sperm nucelus with an egg nucleus is known as ..... and results in a .....egg.

(p) The menstrual cycle in controlled by .....

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82. (a) What are gametes?

(b) In which sort of reproduction are gametes involved?

(c) What is formed when two gametes fuse?

(d) What is this act of fusion called ?

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83. (a) Write the names of (a) male sex hormone, and (b) female sex hormones

(b) What name is given to the fusion of sperm

and ovum?

(c) Name the tissue through which the foetus gets all the requirements from the mother's body.

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84. (a) Explain the term self pollination and cross-pollination ?

(b) How do the insects help in cross-pollination ?

(c) How is the process of pollination different from fertilization ?

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85. (a) Explain the term 'fertilisation'

(b) Give some examples of different modes of fertilisation in nature ?

(c) What type of fertilisation takes place (i) fish, (ii) fish, and (ii) birds ?

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86. (a) What are the male and female gonads in human beings ? Mention their functions

(b) State the advantage of sexual reproductive over asexual reproduction.

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87. The anther contains :

A. sepals

B. ovules

C. carpel

D. pollen grains

Answer: D

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88. Which of the following is not a part of the female reproductive system in human being?

A. ovary

B. uterus

C. vas deferens

D. oviducts

Answer: C

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89. One of the following is not a part of the human male reproductive system. This is

A. testis

B. oviduct

C. seminal vesicle

D. prostrate gland

Answer: B

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90. Which of the following is not a sexually transmitted disease ?

A. gonorrhoea

B. encephalitis

C. syphilis

D. AIDS

Answer: B

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91. Which of the following method of contraception protects a person from acquiring a sexually transmitted disease ?

A. oral pills

B. condom

C. copper-T

D. surgery

Answer: B

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92. In which one of the following birth control methods, a small portion of oviducts of a women is removed by surgical operation and the cut ends are ligated ?

A. copper-T

B. tubectomy

C. vasectomy

D. diaphragm

Answer: B

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93. One of the following is a surgical method which prevents the sperms from reaching the

ovum and pregnancy does not occur . This method is :

A. IUCD

B. vasectomy

C. condom

D. tubectomy

Answer: B

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94. Fertilisation results immediately in the formation of :

A. a zygote

B. an embryo

C. a placenta

D. a foetus

Answer: A

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95. Which one of the following best describes the function of the umbilical cord ? It:

A. feeds the embryo with digested substances.

B. conveys nutrients and wastes to and from the embryo respectively

C. removes waste matter from the embryo to the mothers blood.

D. supplies oxygenated blood from the mother to the embryo.

Answer: B

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96. The sexually transmitted disease which is caused by bacteria is :

A. malaria

B. diarrhoea

C. gonorrhoea

D. AIDS

Answer: C

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97. AIDS is a deadly disease which is caused by:

A. a protozoan

B. a fungus

C. a bacterium

D. a virus

Answer: D

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98. The advantages that internal fertilisation has over external fertilisation is that in internal fertilisation :

A. a new off-springs are exactly like the parent

B. production of large numbers of gametes in unnecessary

C. copulation and fusion of gametes is passive

D. fewer individuals are produced

Answer: D

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

A. sepal and anther

B. filament and stigma

C. anther and ovary

D. stamen and style

Answer: C

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100. Which of the following is the correct sequence of events of sexual reproduction in a flower?

A. pollination , fertilisation, seed , embryo

B. seed, embryo, fertilisation, pollination

C. pollination, fertilisation, embryo, seed

D. embryo , seed, pollination, fertilisation

Answer: C

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101. Characters transmitted from parents to offspring are present in

A. cytoplasm

B. ribosome

C. golgi bodies

D. genes

Answer: D

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102. 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. neighter similarities nor variations with parents

Answer: C

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103. The number of chromosomes in parents and offsprings 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

Answer: B

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104. Which of the following statements 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)

Answer: D

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105. The correct sequence of organs in the male reproductive system for transport of sperms is

A. testis $\rightarrow$ vas deferens $\rightarrow$ urethra

B. testis $\rightarrow$ ureter $\rightarrow$ urethra

C. testis $\rightarrow$ urethra $\rightarrow$ ureter

D. testis $\rightarrow$ vas deferens $\rightarrow$ ureter

Answer: A

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106. In human males, the testes lie in the scrotum, because it helps in the

A. process of mating

B. formation of sperms

C. easy transfer of sperms

D. all the above

Answer: B

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107. 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. (i) and (iii)

C. (ii) and (iv)

D. (iii) and (iv)

Answer: D

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108. 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

Answer: C

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109. In human females, an event that reflects onset of reproductive phase is

A. growth of body

B. change in hair pattern

C. change in voice

D. menstruation

Answer: D

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110. Offspring formed as a result of sexual reproduction exhibit more variations because

A. sexual reproduction is lengthy process

B. genetic material comes from two parents of different species

C. genetic material comes from two parents of same species

D. genetic material comes from many parents

Answer: C

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111. 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. (ii) and (iii)

D. (i), (ii) and (iv)

Answer: B

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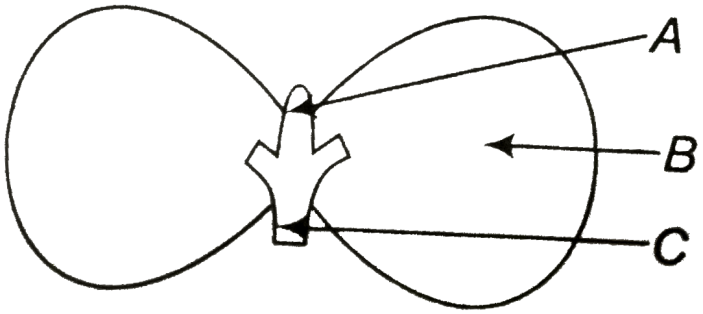
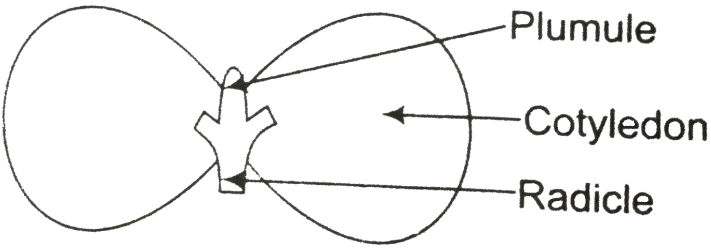
112. In figure the parts A, B and C are sequentially





A. cotyledon, plumule and radicle

B. plumule, cotyledon and radicle

C. radicle, cotyledon and plumule

D. radicle, cotyledon and plumule

Answer: C

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113. The correct sequence of reproductive stages seen in flowering plants is

A. gametes , zygote , embryo , seed

B. zygote , gametes, embryo, seed

C. seed, embryo , zygote, gametes

D. gametes , embryo, zygote , seed

Answer: A

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Vert Short Answer Type Questions

1. Which artifical propagation method is uded for the production of jasmine plants ?

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2. Name two plants which are propagated by layering method.

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3. Name any two plants which are propgated by cuttings method.

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4. Fill in the following blanks with suitable words:

(a) The process for ..... Ensures continuity of life on earth.

(b) Plasmodium reproduces by the process of ..... Fission whereas Paramecium reproduces by the process of ..... Fission

(c) Rose plants and sugar can crop are usually grown by the ..... method.

(d) Vegetative reproduction of potato plants is done by using .....

(e) Strawberry plants are propagated by the natural ..... method

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Short Answer Type Questions

1. (a) What is the basic difference between asexual reproduction and sexaul reproduction ?

(b) Which of the following organisms reproduce by sexual method and which by

asexual method ? Amoeba, Cats, Humans, Hydra, Birds

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2. (a) What is meant by regeneration ? Name two animals which cn regenerate fully from their cut body parts.

(b) Explain, why, more complex multicellular organisms cannot give rise to new organisms through regeneration

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3. (a) What is meant by the term, artificialpropagation of plants

(b) Name three common method which are used for the artifical propagation of plants.

(c) Name two plants which are usually propgated b y artificial propagation method. Name the method of articial propagation used in each case.

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4. Descibe the layering method for the artifical propagation of plants. Illustrate your answer with the help of a labelled diagram. Name any five plants which are propagated by the layering method.

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5. (a) What is mean by the term fission as used in biology?

(b) How does binary fission differ from

multiple fission

(c) Name oce organism which reproduces by binary fisison and another which reproduces by multiple fission.

(d) State wheter the above named organisms ae animals or plants.

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6. (a) Can you consider cell division as a type or reproduction in unicellular organisms ? Give reason.

(b) What is a clone ? Why do offsprings formed by asexual reproduction exhibit remarkable similarity ?

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7. (a) The yeast cells fail to multiply in water but they multiply rapidly in sugar solution. Give one reason for it.

(b) Why dies bread mould grow profusely on a moist slice of bread but not on a dry slice of bread?

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8. (a) What is a tuber? Name one stema tuber and one root tuber.

(b) What is name of organ of propagation present in a tuber ?

(c) Name one commonly used vegetable which is propagated by using tubers.

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9. (a) What is meant by vegetative propagation?

(b) Vegetative propagation involves the growth and development of something present in the old part of the plant to from a new plant. What is this something ?

(c) Why do green grass plants spring up in dry fields on their own after rains ?

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10. (a) Explain how, new Bryophyllum plants can be produced from the leaves of the old plant ? Illustrate your answer with the help of a labelled diagram

(b) How can you grow money plant by vegetative propagation ?

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11. Match the organisms given in column I with the method of reproduction / propagation

given in column II :

	Column I		Column II
(i)	Plasmodium	(a)	Spore formation
(iv)	Spirogyra	(b)	Leaves
(ii)	Jasmine	(c)	Regeneration
(iv)	Apple tree	(d)	Budding
(v)	Bryophyllum	(e)	Binary fission
(vi)	Potatoes	(f)	Layeri ng
(vii)	Rhizopus	(g)	Fragmentation
$(viii)$	Hydra	(h)	Tubers
(ix)	Planaria	(i)	Cuttings
(x)	Leishmania	(j)	Multile fission
(ξ)	Sugar cane	(k)	Grafting
(ξi)	Rose		

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12. (a) Draw a neat labeled diagram of the stamen of flower. Mark in it filament and anther.

(b) Draw a neat sketch of the carpel of flower.

(c) what is made in (i) anther, and (ii) ovary , of a flower?

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13. Describe the various steps involved in the sexual reproduction in animals . Draw labelled

diagrams to show the fertilizations of an ovum (or egg) by a sperm to from a zygote

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14. Why does menstruation occur ? Describe the menstrual cycle in human females (or women)

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15. (a) What does various steps involved in the sexual reproduction in plants

(b) Name two plants which reproduce by sexual reproductin method and two plants which reproduce by asexual reproduction methods.

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16. (a) What type of plants reproduce by sexual reproduction method ?

(b) What is seed ? What are the part of seed ? Exaplain with the help of a labelled diagram.

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17. (a) What is puberty ? Who attains pyberty at an earlier age in human beings: male or female (boy or girl) ?

(b) Mention two functions each of (i) human testes , and (ii) human ovaries.

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18. (a) What is gestation period ? How much is the gestation period in humans ?

(b) Name one method of contraception which also protects against sexually transmitted diseases.

(c) Name one sexually transmitted disease for which no definite cure has been found so far. What is the causative organsim of this disease?

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19. What are the three types of methods used for birrh control (or regulating child birth)? Give one example of each type.

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20. (a) What is the name of surgical method of birth control in human males in which the sperm ducts are cut and ligated (tied) at both ends ?

(b) What is the name of surgical method of

birth control in human females in which the oviducts are cut and ligated (tied) at both ends ?

(c) Name the contraceptive device used by the human males which acts as a sheath over the male organ and traps the sperms in it.

(d) Name the contraceptive device used by human females which is put over the cervix.

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21. (a) Describe the surgical methods of birth control (i) for men, and (ii) for women.

(b) Name two devices used in the barrier method of birth control.

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22. (a) What is meant by contraceptive ? What are the different methods of contraceptive ?

(b) What is done in the contraceptive method known as (i) vasectomy, and (ii) tubectomy?

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23. (a) What are sexually transmitted diseases ? Give two examples of sexually transmitted diseases .

(b) Which method of contraception prevents fertilised egg from being inplanted in the uterus ?

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24. (a) What substances are contained (i) in oral pills, and (ii) in vaginal pills, used as contraceptives ? How do they work ?

(b) How does copper-T prevent pregnancy ?

(c) Name the disease caused by HIV.

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25. (a) What is the name of surgical method of birth control (or preventing pregnancy) which is carried out (i) in men and (ii) in women ?

(b) Name the part of a seed which (i) contains stored food (ii) grows into root , and (iii) grows into shoot.

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26. Explain how, offspring and parents of organisms reproducing sexually have the same number of chromosomes?

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27. In tabacco plant, the male gametes have 24 chromosomes.

(i) what is the number of chromosomes in the female gamete ?

(ii) What is the number of chromosomes in the zygote ?

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28. (a) What would be the ratio of chromosomes number betweeen an egg and

its zygote ?

(b) Distinguish between a gamete and a zygote.

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29. (a) Fertilisation in humans can occur only once in a month. Why ?

(b) What is the scientific name of (i) womb, and (ii) birth canal ?

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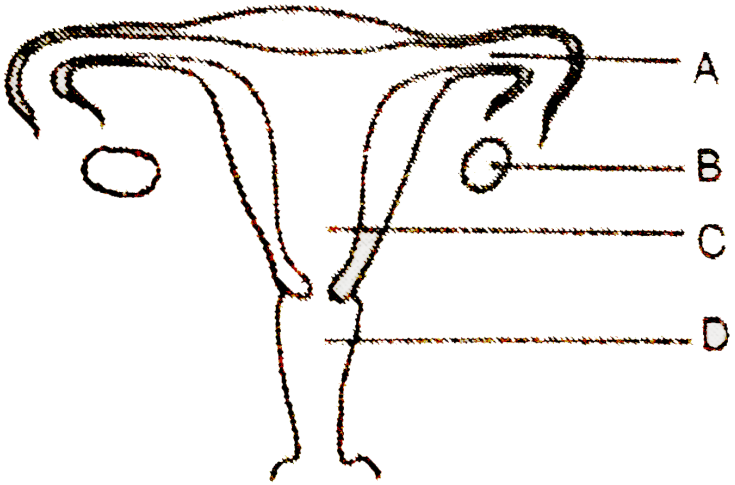
30. The diagram shows female reproductive system. Name the parts labelled A to D.

(a) In which part do the sperms enter ?

(b) Which part releases the egg ?

(c) In which part does fertilizations take place ?

(d) In which part does the fetes develop ?



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31. What is it advantage for the testes to be situated in the scrotal sac outside the main body cavity? Can you thick of one disadvantage ?

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32. Which structures in human female are equivalent to the following structures in the

male ?

(a) testes (b) vas deferens (c) penis

In each case say in what respect the structures are equivalent?

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33. People who die from AIDS are not killed by the virus itself. Explain.

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34. (a) What is the life support system of a fetus ?

(b) How long does a human body take to develop before birth?

(c) What is the name of narrow opening between the uterus and the vagina.

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Long Answer Type Questions

1. (b) What is meant by reproduction?

(b) What ae the two general methods of reproducrtion in organisms?

(c) How does and Amoeba reproduce? Descirbe the process of reproduction in Ameoba with the help of labelled diagrams of different statages by its reproduction process.

(d) What is teh name of the process by which Amoeba reproduces?

(e) Name two organisms which reproduce by the same asxual process at that of Amoeba.

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2. (a) What is the difference between the two asexual methods of reproduction : fission and fragmentation. ?

(b) Name one organism which reproduce by fission another which reproduces by fragmentation.

(c) What is meant by multiple fission ? Name one organism which reproduces by the process of multiple fission.

(d) Describe the process of reproduction in Hydra with the help of labelled diagrams.

What is the name of this process of preproduction. ?

(e) Name one unicellular organism which reproduces by the same asexual process as Hydra.

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3. (a) Name the method by which bread mold (Rhizopus fungus) reproduces. Is this method sexual or asexual?

(b) What is yeast? Describe the process of

reproduction in yeast with the help of labelled diagrams.

(c) Name or tiny fresh-water animal which reproduces by the same method as that of yeast? What is this method known as ?

(d) Name two marine organisms which also reproduce by the same method yeast but from colonies.

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4. (a) What is meant by grafting as means of propagation in plants ?

(b) Define 'stock' and ' scion' .

(c) Describe the grafting method fro the artificial propagation of plants with the help of labelled diagrams.

(d) Name two fruit tress which are usually propagation by grafting method.

(e) State two advantage of grafting method of artificial propagation of plants

(f) What is difference between the cutting

method and grafting method for the artificial propagation of plants ?

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5. (a) What is tissue culture ?

(b) Name any four types of ornamental plants which are being produced by tissue culture technique.

(c) What is the important of DNA copying in reproduction ? Explain with example.

(d) How does reproduction help in providing

stability to populations of species ?

(e) Why is variation during reproduction beneficial to the species but not necessarily for the individual ?

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6. (a) What is the cutting respect of plants for propagation purposes ?

(b) What care should be taken while making a cutting from a plant?

(c) Describe the cutting method for the

artificial propagation of plants. Illustrate your answer with the help of labelled diagrams.

(d) Name any two plants which are usually propagated by the cutting method.

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7. (a) What is meant by 'unisexual flowers' and 'bisexual flowers' ? Give two examples of each.

(b) What is pollination ? How does pollination occur ?

(c) Describe the process of fertilisation in a

flower with the help of labelled diagrams.

(d) What changes take place in the flower after fertilisation which lead to the formation of seeds and fruit ?

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8. (a)Draw a neat diagram of a flower showing its various parts. In this diagram mark stem, receptacle, sepals, petals, stamen and carpel.

(b) What name is given to (i) all the petals of a flower, and (ii) all the sepals of a flower ?

(c) What are (i) stamen, and (ii) carpel, in a flower ?

(d) What is the other name of carpel of a flower?

(e) What is the name of yellow powdery substance present in the anther of a flower ?

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9. (a) What changes are seen in boys at the time of puberty ?

(b) Name the organs which produce sperms in

human males.

(c) Draw a labelled diagram of the human male reproduction system. With the help of this diagram, describe the working of human male reproductive system?

(d) What is the role of seminal vesicles ad prostrate gland in human male reproductive system ?

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10. (a) What changes are seen in girls at the time of puberty ?

(b) Name the organs which produce ova (or egg cells) in human females.

(c) Draw a labelled diagram of human female reproductive system. With the help of this diagram , explain the working of human female reproductive system.

(d) Describe the process of fertilisation in humans and development of embryo briefly.

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11. (a) What is ovulation ? How often does it happen in human females ?

(b) Where does fertilisation take place in human females ?

(c) Explain why, fertilisation is possible if mating takes place during the middle of menstrual cycle .

(d) What is meant by implantation?

(e) What is placenta ? What is its function ?

(f) What joins embryo to placenta in mother's body ?

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Multiple Choice Questions Mcqs

1. A tiny animal having tentacles which reproduces by growing buds on the sides of its body is :

A. Planaria

B. Yeast

C. Amoeba

D. Hydra

Answer: D

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2. A Planaria worm is cut horizontally in he middle into two halves P and Q such that the part P contains the whole head of the worm. Another Planaria worm is cut vertically into two halves R and S in such a way that both the cut pieces R and S contain half head each. Which of the cut pieces of the two Planaria

worms could regenerate to from the complete respective worms ?

A. only

B. only R and S

C. P,R and S

D. P,Q,R and S

Answer: D

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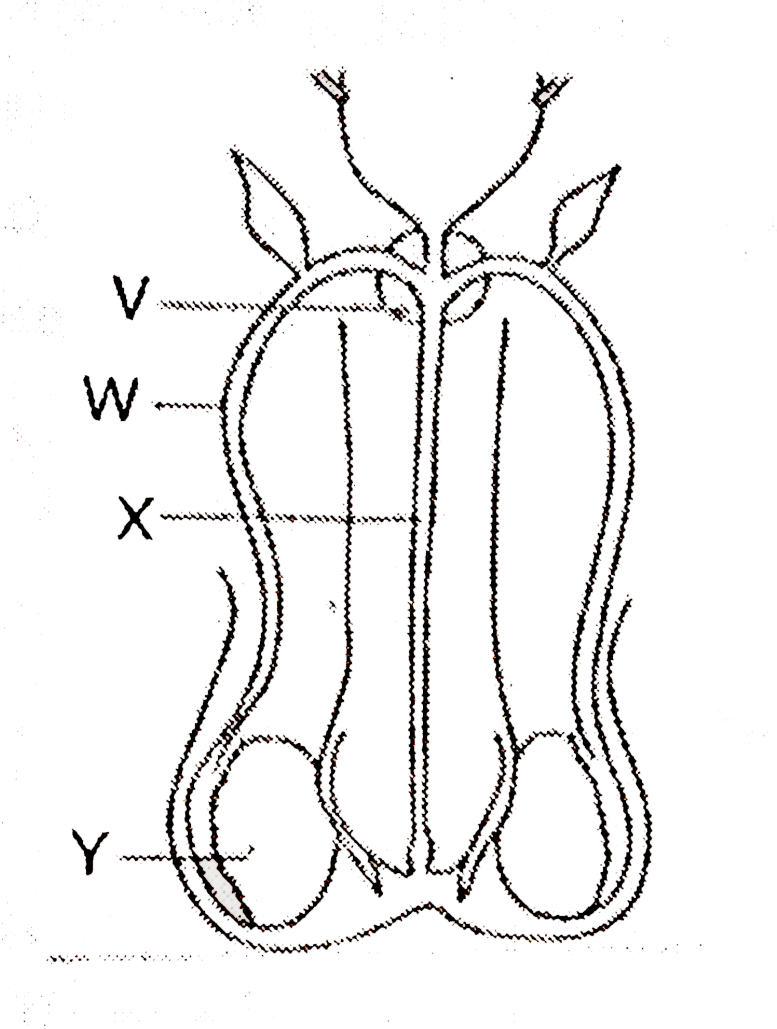
3. The figure given alongside shows the human male reproductive organs. Which structures make sperms and seminal fluid ?



A. V makes sperms and X makes seminal fluid

B. W makes sperms and Y makes seminal fluid

C. X makes sperms and W makes seminal fluid

D. Y makes sperms and V makes seminal fluid

Answer: D

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4. Length of pollen tube depends on the distance between

A. pollen grain and upper surface of stigma

B. pollen grain or upper surface of stigma and ovule

C. pollen grain in anther and upper surface of stigma

D. upper surface of stigma and lower part of style.

Answer: B

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5. One of the following occurs in the reproductive system of flowering plants as well as that of humans. This is :

A. vas deferens

B. anther

C. ovary

D. style

Answer: C

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6. 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. (ii),(iii) and (iv)

Answer: C

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7. One of the following process does not lead to the formation of clones. Thus is :

A. fission

B. fertilisation

C. fragmentation

D. tissue culture

Answer: B

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8. The part of seed which grows and develops into root on germination is :

A. cotyledon

B. plumule

C. follicle

D. radicle

Answer: D

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9. The male gametes in a flower and in a human are produced sperm in:

A. stigma and ovary

B. anther and style

C. ovary and testes

D. radicle

Answer: D

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10. The ratio of number of chromosomes in a human zygote and a human sperm is :

A. $2:1$

B. $3:1$

C. $1:2$

D. $1:3$

Answer: A

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11. The normal body cell of an organism contains 28 pairs of chromosomes. The

number of chromosomes present in its germ cell will be :

A. 28

B. 14

C. 56

D. 42

Answer: A

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Questions Based On High Order Thinking Skills Hots

1. There are four tiny organisms A,B, C and D. The organism A is a parasitic protozoan which causes a disease known as kala-azar. The organism B is microscopia single-called animl which causes malaria disease in human beings. The organism C is a unicellular animal which can change its body shape accroding to need, it has no fixed shapt. The organism D is also a unicellular animal which i slopper-shaped

having a large number of tiny hair all around its body.

(a) Name the organisms A, B, C and D

(b) Name one characteristic body feature of organism A

(c) Name the insect which carreis organism B and transmits if from on person to another

(d) What name is given to the asexual method of reproduction of (i) organism A, and (ii) organism B?

(e) Where do organism C and D live?

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2. Two very small organisms X and Y both reproduce by the method of budding. Organism X is industrially very important because it is used in making alcohol from sugar. It is also used in making bread. Organism Y lives in freshwater. If organism Y gets cut into a number of parts accidently , each cut part can grow to from complete organism.

(a) What are organisms X and Y ?

(b) What is the name of process in which X convert sugar into alcohol

(c) To Which class of organisms does X belong?

(d) Name an important body feature of organism Y

(e) Which organism is multicellular and which one is unicellular?

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3. When a moist slice of bread was kept aside for a few days then some organism grew on it to from a white, cottony mass which later

turned black. When this slice of bread was observed through a magifying glass, Then fine thread-like projections and thin stems having bulb-like structures at the top were seen.

(a) What is the common name and scientific name of the organism which grew on the slice of bread

(b) How did this organism grow on the moist slice of bread automatically?

(c) What are the fine, thread-like projections on the surface of slice of bread known as ?

(d) What name is given to the knob-like structures and what do they contain?

(e) What is the name of this method of reproduction?

(f) Name one unicellular organism which reproduces by this method.

(g) Name two non-flowering plants which reproduce by this method.

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4. A scientist removed some cells from the growing point of a plant and placed it in a suitable medium leading to the formation of a

shapeless lump of mass X,Y is then transferred to another medium which stimulates it to develop roots. When X which developed roots is placed in a yet another medium, then it develops shoots to from tiny plantlets. These plantlets can then be transplanted in pots or soil where they can grow to form mature plants.

(a) What is the shapeless lump of mass X known as ?

(b) What name is given to this method of producing new plants ?

(c) The growth medium used in this method

contains plant nutrients in the form of jelly . Name this jelly.

(d) What is the general name of chemicals used to stimulate the growth of plant cells and development of roots and shoots?

(e) Name any two plants which are produced by this method.

(f) State any two advantage of this method of producing plants

(g) What is the other name of this method [other than that given in (b) above ?

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5. The stem of fruit tree X fixed in soil is cut in a slanting way. The upper part of stem of another fruit tree Y of different variety of same species is also cut in a slanting way. The cut stem of tree Y, without roots but having some leaves, is placed over the rooted cut stem of tree X in such a way that their cut surfaces fit. together properly. While joining the two cut stems, care is taken to make sure taken to make sure that the layer Z of one cut stem is in contact with layer Z of the other cut stem. The joint of cut stem is bound tightly

with a piece of cloth and covered properly with polythene. Soon the cut heals and the two stem grow together and become one fruit tree producing leaves, flowers and frits.

(a) What is the name of this method of producing plants or trees ?

(b) What name is given to the cut stem of tree X having roots?

(c) What name is given to the cut stem of tree Y which has no roots but has some leaves

(d) Name the layer Z.

(e) Why should the layer Z of one cut stem be in contact with the layer Z of the other cut

steam ?

(f) Name any four fruit trees which are usually bred by this technique.

(g) State any one advantage of producing fruit tress by this technique

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6. A small part of the shoot of a plant is removed with a sharp knife. When the lower end of this small part of the shoot is buried in moist soil, it gradually develops roots and

shoots and grows to become a new plant.

(a) What is the name of this method of propagating plants ?

(b) What care should be taken while removing a small part of the shoot from the parent plant with a knife?

(c) Name any two plants which provide us food directly or indirectly and are grown by this method.

(d) Give one advantage of this of this method of producing new plants.

(e) State whether it is a sexual method of reproduction or an asexual method. why ?

(f) What special name can be given to the genetically similar organisms?

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7. When the branches of a plant growing in the field are pulled towards the ground and a part of them is covered with moist soil (leaving the tips of the branches exposed above the ground), then after some time new roots develop from the parts of branches buried in the soil. On cutting these branches

from the parent plant new plants are produced from the cut parts of branches which had developed roots.

(a) What is this method or propagation of plants knows as ?

(b) What type of branches should a plant have to be able to be propagated by this method?

(c) Name any two plants which are grown for their flower and propagated by this method

(d) Name any two plants which are grown for their fruits and propagated by this method

(e) Name of plant which gets propagated by

this method naturally by forming runners (soft horizontal stem running above the ground)

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8. A worm X found in freshwater and slow - moving streams has been accidentally cut into three pieces. It was observed that in due course of time, each cut piece of the worm develops to become a complete worm by growing all the missing parts.

(a) Name the worm X which can exhibit this

phenomenon of making complete worm from its cut body parts.

(b) Name another organism Y which possesses the same characteristic of growing full its cut body parts.

(c) What is the name of this process in which a complete organism is formed from its cut body part.

(d) State whether X and Y are unicellular and / or multicellular organisms .

(e) Can a dog be produced completely from its cut body part (say, a cut tail) just like organisms X and Y? Why?

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9. A thickened underground stem X of a plant which is swollen with stored food has a number of points Y on its surface. When the old stem X is planted in the soil of a field in the next growing season, then each point Y present on its surface grows into a new plant.

(a) What is the general name of the underground stems like X?

(b) Give one example of X

(c) What are points Y present on X known as ?

(d) Is it necessary to plant the whole of stem X in the ground to it new plants? Explain your answer

(e) What is the name of this method of reproduction of plants ?

(f) What is the advantage of growing new plants from the underground stems like X?

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10. A filamentous alga X is found is ponds, lakes and slow-moving steams. The filament of

this alga simply breaks onto two (or more) pieces on maturing and each piece then grows to becomes a complete new alga.

(a) Name on alga which X is likely to be.

(b) What is the colour of X ?

(c) What is the method of forming new algae by the breaking of parent alga known as ?

(d) An Amoeba also breaks up to from two daughter Amoeba. What is the difference in splitting of Amoeba and splitting of this alga as a method of reproduction?

(e) Name one marine animal which reproduces in the same way as alga X

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11. When a broken piece of the stem of a plant X is planted in the soil, a new plant grows from it in a week's time. The leaves of plant X also have many small entities Y in their margins which can fall to the ground alone or along with leaves and grow into new plants.

(a) Name a plant which X could be.

(b What are the entities Y present on the leaves of X known as ?

(c) Name a plant other than X which can be

reproduced from its leaves.

(d) Name a common plant grown in many homes which can be propagated from its broken stems like plant X.

(e) Name a kind of dormant organs present in dry stems of old grass plants lying in the field which get activated and produce green grass plants after the rains.

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12. The flask-shaped organ A at the center of a flower is surrounded by a number of little stalks B having swollen tops which lie just inside the ring of petals.

(a) Name A. What are the various parts of A ?

(b) Which part of A contains gametes ?

(c) Name B. What is the swollen top of B known as ?

(d) What does the swollen top pf B contain ?

(e) Out of A and B, which one is (i) male part, and (ii) female part of the flower ?

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13. When an insect sits on the flower of a plant them some particles A present in the top of little stalks in the flower attach to its body hair. When this insect now sits on the flower of another similar plant, then particles A attached to the hair of insect are put on the top of a flask-shaped organ at the centre of flower. The particle A grows a long tube B from the top of flask-shaped organ through which C moves down and reaches the bottom part of flask-shaped organ. Here C fuses with the

nucleus of D contained in structure E. the fusion of C and D forms a new cell F which grows and develops into a seed of the plant.

? (a) What are particles A ? What is the process of transferring A from one flower to another flower of similar plant by the insect of known as?

(b) What is the name of tube B?

(c) What is C which moves down through the tube

(d)Name D and E.

(e) What is F?

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14. When a human female reaches a certain age then vaginal bleeding occures for a few days after regular time intervals.

(a) What is this process known as (i) in scientific terms, and (ii) in everyday language ?

(b) At what approximate age this process starts in human females ? What is the human female said to have attained at this stage?

(c) After how much time as this process repeated ? For how many days this process usually lasts?

(d) What does the onset of this process in human signify?

(e) At which particular event in the life of a human female this process stops temporarily but starts again

(f) At which approximate event in the life of a human female this process stops permanently?

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15. X and Y are two human beings. The organ A in the reproductive system of X releases a mature gamete B once a month which goes which into a tube-like structure C through a funnel-like opening. The organ D in the reproductive system of Y makes and release gametes E which pass through a duct F and and are introduced by an organ of Y, into the body of X,B and E together in C to from G. The cell G divides repeatedly to from a ball of cells H which gets embedded in the lining of organ I of reproductive system of X where it grows

and develops into to baby.

(a) Name (i) organ A, and (ii) gamete B.

(b) Write two names of tube-like structure C.

(c) Name (i) organ D, and (ii) gamete E.

(d) Write two names of duct F.

(e) Name (i) cell G (ii) ball of cells H, and gamete F.

(f) Out of X and Y, which one is (i) male, and (ii) female?

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16. When a fertilised egg E formed in the oviduct of a human female divide repeatedly to from an embryo, the embryo gets implanted in the thick and soft lining of the uterus. After this a disc-like special tissue T develops between the uterus wall and embryo through which all the requirements of the developing embryo (and foetus) are net from the mother's body. The embryo is connected to the tissue T through a string like structure S.

(a) What is the other name of fertilised egg

cell E?

(b) What in the name of tissue T?

(c) Name the string-like structure S

(d) Name two substances which pass from mother's blood to embryo through tissue T and, one type of substance which passes from embryo to mother's blood.

(e) What happens to S when the baby is born ? Why?

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17. When a female child is born, her ovaries already contain thousands of immature eggs (or ova) contained in immature structures A. On maturing, A bursts open and and egg shoots cut of the ovary in a process called B. The process B starts in the female after a time period x. Before every occurrence of process B, the inner lining of uterus becomes thick and soft with lots of blood vessels in it. When the egg cell gets fertilized by a sperm, then an event C occurs in the life of mature human female which lasts for time period y leading to

the birth of baby. If however, the egg cell released by the ovary does not get a sperm to fuse with, then the thick and soft inner lining of uterus breaks down and comes out of the female's body in an event called D. The occurrence of event D is controlled by chemical substances E.

(a) What are A?

(b) What is process B ?

(c) What is the time period x?

(d) Name the event C.

(e) How much is the period y ?

(f) What is the name of process D?

(g) Name the chemical substances E.

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18. In the surgical method of birth control available for males, the structures A in the reproductive system are cur and ligated (tied up) at both ends. This prevents the reproductive cells B from coming out from the organs C where they are made in the male body. Since B connot come out from the male

body, they cannot fuse with cell D in the body of a female and hence pragnancy is prevented.

(a) What are structures A ?

(b) What are cells B ?

(c) Name the organs C.

(d) What is cell D ?

(e) What is the name of this surgical procedure for birth control available to males ?

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19. In the surgical method of birth control available for human females, the structures P in the reproductive system are cut and ligated (tied up) properly at both ends. This prevents the reproductive cell Q released by an organ R from entering the structures P also that Q is not available to fuse with another reproductive cell S coming form the male reproductive system. In this way, pregnancy is prevented.

(a) What are structures P ?

(b) What is Q ?

(c) Name the organ R.

(d) What is the general name of these methods of birth control (or preventing pregnancy) ?

(e) What is the name of this surgical method of birth control available of females ?

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20. The human males use a device X made of a very thin rubber sheet as a covering on the male organ to prevent pregnancy. This device

traps the gametes Y in it. In order to prevent pregnancy, the human females use a device Z which is a circle of rubber with a metal spring around it. The device Z is put inside the vagina to cover cervix. It stops Y from going into the uterus.

(a) What is device X ?

(b) What are Y ?

(c) name the device Z.

(d) What is the general name of these methods of these methods of birth control (or preventing pregnancy)?

(e) The use of which contraceptive device, X or

Z can protect the persons from sexually transmitted diseases?

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21. A women uses pills A a as a method of birth control (or preventing pregnancy). The pills A stop the ovaries from releasing ovum into oviducts. Another women uses pills B as a method of birth control. The pills B kill the sperms and prevent pregnancy.

(a) What do the pills A contain ?

(b) What is the common name of pills A ?

(c) What do the pills B contain ?

(d) What is the common name of lills B ?

(e) What is the general name of these methods of birth control?

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22. A women uses a device X made of a common metal for preventing pregnancy. This device works by preventing the implantation of fertilised egg cell (or embryo) in the female

organ Y.

(a) What are the two names of device X ?

(b) Name the organ Y.

(c) Can this method of contraception protect a women from acquiring a STD?

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23. A,B and C are three common STDs. A and C are caused by bacteria whereas B is caused by a virus D. The virus D reduces the immunity of infected person to such a low level that the

person to such a low level that the person can die of even very mild diseases.

(a) What could A and C be ?

(b) What is B ?

(c) Name the virus D ?

(d) How can A, B and C be caused?

(e) Out of A, B and C, which one does not have a definite cure as yet?

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24. The germ cell A produced by a person X is round in shape and it fuses with another germ cell B having a long tail and produced by a person Y. The fusion of A and B produces a new cell C. The cell C divides repeatedly and grows inside the organ D of person X to form E in which the body features of the unborn baby are not much developed. E grows further to form F in which the various body features of the unborn baby (like hands, legs, eyes, and ears, etc.) can be identified. F grows further and ultimately forms a baby. What are A,B C,D

E and F? Out of the two person X and Y, which one is male and which one female?

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25. Explain why, a human zygote is more likely to grow into an adult than a frog zygote.

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26. In a bisexual flower, inspite of the toung stamens being removed articicially, the flower

produces fruit. Explain

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27. In what ways is fertilisation in a plant:

(a) similar to fertilisation in a human?

(b) different from fertilisation in a human ?

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