Chapter- 8.

HOW DO ORGANISMS REPRODUCE?

Section A (One-mark questions)

1. Define reproduction.

2. Define fertilization.

3. Where the fertilization does takes place in human female?

4. Name two type of reproduction.

5. What method will you use for growing jasmine and rose plant?

6. Define menstruation.

7. Write the name of male and female reproductive part of a flower.

8. Define gestation period. What is the gestation period in human?

9. Why do testes in mammals descend in scrotum?

10. Name the type of fission carried out by Amoeba.

11. Name two sexually transmitted diseases.

12. What is vegetative propagation?

13. Name the male and female gonads and what are the products they produce.

14. Which part of human female reproduction system is called —birth canal and the —womb?

15. Write the full form of IUCD and AIDS,

16. What is syngamy?

17. What is advantage of fruit formation in plant?

18. What is ovulation?

19. What is menopause?

20. What is the importance of the process of reproduction?

21. What is species?

22. Do organisms produce exact copies of themselves during reproduction?

23. What is the importance of variations?

24. Why is variation beneficial to the species but not necessarily for the individuals?

25. Mention the common mode of reproduction found in (i) Amoeba (ii) Planaria.

26. Name any two types of asexual reproduction.

27. Define reproduction.

28. Name two organisms that show asexual reproduction.

29. How does Hydra reproduce? Name another organism that reproduces by a similar method.

30. Name two plants which reproduce through spores.

31. Why is regeneration considered a method of reproduction?

32. Which vegetative part is used in the propagation of Bryophyllum and mint?

33. Name two types of layering.

34. Name some plants where layering is used.

35. Which technique would you use for propagating improved varieties of mango and rose?

36. Mention the reproductive parts of a flower.

37. Define fertilization.

38. What is self-pollination?

39. What is cross pollination?

40. What are the agents of pollination?

41. Which process results in formation of zygote?

42. What grows to form a fruit?

43. What is carpel?

44. Which parts of the flower transform into the seed and fruit?

45. What are gonads?

46. What is puberty?

47. When is ovum released in human female?

48. What is endometrium?

49. What is implantation?

50. What is parturition?

MCQ

1: A male gonad responsible for production of sperms is _____
(a) Testis (b) Ovary (c) Vas deference (d) Uterus

2: A muscular pouch into which the testes descend known as _____
(a) Puberty (b) Scrotum (c) Seminiferous tubules (d) Both b and c

3: The essential parts of a flower are:
(a) Calyx and corolla (b) Calyx and androecium (c) Corolla and gynoecium (d) Stamens and Pistil

4: Embryo sac is found in:
(a) Endosperm (b) Embryo (c) Ovule (d) Seed

5: Fertilization in humans occurs in:
(a) Uterus (b) Fallopian tube (c) Vagina (d) Urethra
6: Cessation of menstrual cycle in a woman is called:
(a) Menopause (b) Ovulation (c) Lactation (d) Parturition
7: Human female regularly experiences:
(a) Menopause (b) Oestrous cycles (c) Menstrual cycles (d) Both (a) and (b)
8: The first sign of pregnancy is
(a) Absence of menstrual bleeding
(b) Movements of fetus
(c) Enlargement of abdomen
(d) Lack of HCG in urine
9: Amoeba reproduces by
(a) Binary fission (b) Budding (c) Fragmentation (d) Sexually
10.The anther contains:
(a) Sepals (b) Ovules (c) Carpel (d) Pollen grains
11.Asexual reproduction takes place through budding in:
(a) Amoeba (b) Yeast (c) Plasmodium (d) Leishmania.
12. 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 tube
13: When do the boys attain adolescence?
(a) 16 To 18 years (b) 13 To 15 years
(c) 11 to 12 years (d) None of these
14: Name the part of female genital tract where fetus develops.
(a) Urethra (b) Uterus (c) Fallopian tube (d) Ovary
15: Menstrual cycle is repeated after _____
(a) 30 (b) 18 (c) 28 (d) 25
16: The sex hormones produced by the human female ovary is _____
(a) Estrogens & Progesterone (b) Testosterone
(c) Insulin (d) Oxytocin
17: The part in the female reproductive tract, which is commonly called 'birth canal' is _____
(a) Vagina (b) Uterus (c) Cervix (d) Oviducts
18: Name the organ which carries both sperms and urine.
(a) Urethra (b) Ovary (c) Epididymis (d) Vas deferens
19: In vegetative propagation plants produce are genetically:
(a) Dissimilar (b) Similar (c) Abnormal (d) None of above
20: Which of the following is not associated with human male:
(a) Prostate gland (b) Seminal vesicles
(c) Cowper's glands (d) Perineal glands
21: The ovum released from the ovary is received by:
(a) Uterus (b) Vagina (c) Oviduct (d) Isthmus
22.In Bryophyllum, vegetative propagation takes place by:
(a) Leaf (b) Stem (c) Root (d) None of the above
23: The period after 45-50 years in woman known as:
(a) Menstruation (b) Gestation (c) Lactation (d) Menopause
24: The pollen tube at the time of fertilization has:
(a) One gamete nucleus (b) Two gamete nuclei
(c) Three gamete nuclei (d) Four gamete nuclei
25: Mint multiplies vegetatively by:
(a) Runner (b) Tubers (c) Suckers (d) offset
26: The process of release of egg from the ovary is called:
(a) Reproduction (b) Ovulation (c) Menstruation (d) Placenta
27: Several new individuals are produced by:
(a) Binary fission (b) Multiple fission

(c) Both (a) and (b) (d) None of above

28: Which of the following plants shows vegetative propagation?

(a) Sweet potato (b) Wheat (c) Sun flowers (d) Radish

29: Which of the following organisms shows budding:

(a) Hydra (b) Amoeba (c) Paramecium (d) Spirogyra

30: In the process of sexual reproduction:

(a) Only males are needed

(b) Both males and females are needed

(c) Only females are needed

(d) None of the above

31: Why are petals scented and colored?

(a) To repel the insects from pollination.

(b) To attract the insects for pollination.

(c) To increase their aesthetic value for humans.

(d) None of the above

32: How long is the period of menstrual flow?

(a) 4-7 days (b) 10 -12 days (c) 1 - 4 days (d) 1 month

33: What does the term 'menarche' signify?

(a) the temporary phase in the reproductive cycle of the human female in which the probability of successful reproduction is less.

(b) the end of reproductive life of the human female

(c) the beginning of reproductive life of the human female

(d) None of the above

34: Human beings are

(a) Unisexual organisms (b) Bisexual organisms (c) Hermaphrodite (d) None of the above

35: Pollen grains are produced in:

(a) Ovary (b) Anther (c) Petal (d) Thalamus

36: Endometrium is the lining of:

(a) Vagina (b) Uterus (c) Ovary (d) Oviduct

37: Which one of the following is not a part of the organ-system to which the other three belong?

(a) Seminiferous tubules (b) Fallopian tube

(c) Epididymis (d) Vas Deferens

38: Why is earth worm a hermaphrodite or a bisexual organism?

(a) It has both male and female sex organs in different individuals

(b) It has both male and female sex organs in the same individual

(c) Because males have male sex organ and females have female sex organs

(d) They do not have sex organs.

39: Fertilization of human egg normally occurs in the uterus.

(a) True (b) False

40. Vasectomy in women is a method of preventing pregnancy.

(a) False (b) True

Assertion-Reason type Questions

a. Both assertion and reason are true, and the reason is the correct explanation of the assertion.

b. Both assertion and reason are true, but the reason is not the correct explanation of the assertion.

c. Assertion is true but reason is false.

d. Both assertion and reason are false

e: Assertion is false and reason is true

41. Assertion: Young ones produced by asexual reproduction are clones.

Reason: clones are called ramets.

42. Assertion: Chance separation of chromosome is one of the reasons of variation in population.

Reason: Variation is one of the causes of evolution.

43. Assertion: Sex determination is due to males in humans.
Reason: Human males are heterogametes for sex chromosomes.
44. Assertion: Ovule develops into mature seeds and ovary develops into fruits.
Reason: The fruits that develop only from ovary are called true fruits.
45. Assertion: Double fertilization is unique to angiosperms.
Reason: Triple fusion occurs in all groups of plantae.

46. Assertion: Barrier methods are most effective mode of contraception.
Reason: Barrier methods does not help in preventing spread of STD.
47. Assertion: Scrotum has relatively lower temperature.
Reason: Spermatogenesis occurs at lower temperature.
48. Assertion: Male gamete has limited food reserves.
Reason: Female gamete has huge food reserves that makes it non motile.

Case Based Questions

During sexual reproduction both the parents contribute equal amount of genetic material to the progeny. Since genetic material occurs in the form of discrete units called genes, each of us have two sets of all genes inherited from our parents. When gametes fuse, they restore the number of genes with shuffling and reshuffling to make combinations as per law of probability.

a. How is genetic reshuffling beneficial?
b. Where are genes located?
c. How is chromosome number across generations assured?
d. State one advantage of asexual reproduction over sexual reproduction.

Section B(Two marks questions)

49.Mention the information source of making proteins in the cell. What is the basic event in reproduction?

50.(a) In human body what is the role of seminal vesicles and prostate gland.
(b) List two functions performed by testes in human beings.

51.Name the male and female gametes in animals. What is fertilization and where does it take place in human females?

53.What is reproduction? What are the two types? Which one of the two confers new characteristics on the offspring and how?

54.What is binary fission? Draw a diagram to show binary fission in Amoeba

55.What is regeneration? State a reason why a more complex organism cannot give rise to new individuals through this method.

56.State in brief two functions of copper-T used by some women.

57.(a) Give reason: Regeneration is not the same as reproduction.
(b) State the mode of asexual reproduction in Plasmodium.

58. How does Rhizopus multiply by spores. Explain in brief. Sketch a neat labeled diagram of this method.

59.(i) List two reproductive parts of a flower.
(ii) How is a unisexual flower different from a bisexual flower? State in brief.

60.In what respect is the human male gamete different from the female gamete? What is the importance of this difference?

61.What will happen when (a) A mature Spirogyra filament attains considerable length
(b) Planarians gets cut into two pieces?

62.What are sexually transmitted diseases? Name an STD which damages the immune system of human body.

63.(a) Surgical methods can be used to create a block in the reproductive system for contraceptive purposes. Name such parts where blocks are created in

1. Males
2. Females.

(b) State any two reasons for using contraceptive devices.

64.What is vegetative propagation? Write two of its advantages

65.Name the type of asexual reproduction in

(a) Planaria

(b) Rhizopus

(c) Spirogyra

(d) Hydra.

66. Differentiate between

(a) Asexual reproduction and sexual reproduction

(b) Self-pollination and cross pollination.

67.State two point of importance of DNA copying in reproduction.

68.How does the process of budding differ from the process of spore formation?

69.(a) Out of the following plants, which two plants reproduce by vegetative propagation: Jasmine, Wheat, Mustard, Banana?

(b) List any one advantage of practicing this kind of propagation.

70.Illustrate the process of regeneration in Planaria with help of a suitable diagram.

71.State the significance of human testes being located in the scrotum

72.(a) What will happen to ovary and ovule after fertilization in Angio spermic plants?

(b) Name two animals that reproduce asexually.

(c) What are the male and female gonads in human beings known as

73.A) Protozoans reproduce by binary fission as well as multiple fission. In your opinion which process is better and why?

B) In Tobacco plant, the male gametes have 24 chromosomes. State the number of chromosomes in

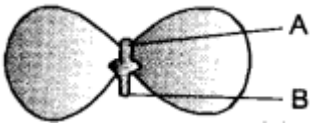
a. Egg nucleus
b. Zygote
c. Endosperm
d. Leaf cell.

74.The organisms formed by asexual reproduction are considered as clones Why? State the advantage of sexual reproduction over asexual reproduction

75.(a) What is the site of implantation and development of young one in human female?

(b) Mention two advantages of using mechanical barriers during sexual act.

76.(a) Name the parts of the flower which ripens to form fruit and seed



(b) In the diagram, label A and B.

77.How does the process of seed germination take place in plants? Describe in brief.

78.Name the sex hormones secreted by male and female sex organs in human beings. State one function of each.

79.Prenatal sex determination has been prohibited by law. State two reasons.

80.What is placenta? State its two roles during pregnancy.

81.Compare the vegetative propagation of Bryophyllum and Money plant.

82.(a) Where are the male germ cell and female gamete produced in a flower?
(b) State the significance of variation in reproduction.
(c) Mention the principle of regeneration.

83.(a) Name two bacterial STD infections.
(b) How do oral pills prevent pregnancy?

84.Explain how ovary functions both as reproductive organ as well as endocrine gland.

85.What is the information source in the cell nucleus for making proteins. State the basic events in reproduction.

86.List the modes of pollination and define each of them.

87.(a) Differentiate between unisexual and bisexual flowers.
(b) Which of the following plants produce unisexual flowers: Watermelon, Hibiscus, Mustard, Papaya?

88.(a) List two events during binary fission in Amoeba.
(b) In which two of the following organisms, regeneration takes place: Lion, Planaria, Hydra, Lotus.

89.(a) Which organ is responsible for implantation of zygote?
(b) State the function of fallopian tubes.

90.(a) Name the structure in human male reproductive system that delivers the sperms from the testes to the urethra.
(b) Name the structure in human female reproductive system which delivers the egg from the ovary to

the uterus.

91.(a) Write the advantage of sexual reproduction over asexual reproduction.
(b) Name the male and female parts of a flower.

92.(a) Differentiate between reproduction and regeneration.
(b) Name any two organisms which grow by regeneration.

93.What is pollination? How does it take place?

94.How is the process of binary fission in Amoeba different from that of *Leishmania*?

95.Which parts/organs of the human reproductive system perform the following functions
(a) Site of fertilization
(b) Production of ovum.

96.Which parts/organs of human reproductive system perform the following functions:
(a) Site of implantation of zygote
(b) Entry of sperms in female reproductive system

97.Give any two differences between radicle and plumule

98. List the suitable difference between pollen grain and ovule.

99.“The chromosome number of sexually reproducing parents and their offspring is the same”. Justify this statement.

100. Draw labelled diagrams to illustrate budding in Hydra.

Section C (Three marks questions)

101.What are sexually transmitted diseases?
Name four such diseases. Which one of them damages the immune system of human body?

102.(a) Explain the terms:
(i) Implantation (ii) Placenta
(b) What is the average duration of human pregnancy?

103. List and explain in brief three methods of contraception.

104. What is AIDS? Which microbe is responsible for AIDS infection? State one mode of transmission of this disease. Explain in brief one measure for the prevention of AIDS.

105. State in brief the changes that take place in a fertilised egg (zygote) till birth of the child in the human female reproductive system. What happens to the egg when it is not fertilised?

106. What is 'reproduction'? Mention the importance of DNA copying in reproduction.

107."Variations that confer an advantage to an individual organism only will survive in a population." Justify.

108. Name one sexually transmitted disease
each caused due to bacterial infection and viral infection. How can these be prevented?

109.(a) In the human body what is the role of
(i) seminal vesicles, and (ii) prostate gland
(b) List two functions performed by testis in human beings.

110.What does HIV stand for? Is AIDS an infectious disease? List any four modes of spreading AIDS.

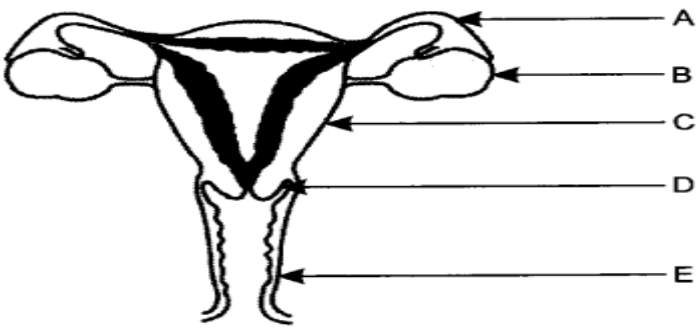
111. Expand AIDS. List any four methods of prevention (control) of AIDS.

112.(a) List any four reasons for adopting contraceptive methods.
(b) If a woman is using Copper-T, will it help in protecting her from sexually transmitted diseases? Why?

113. Explain the following methods of contraception giving one example of each:
(i) Barrier method

(ii) Hormonal imbalance method
(iii) Surgical method.

114. (a) Name the parts labelled A, B, C, D and E.



(b) Where do the following functions occur?
(i) Production of an egg
(ii) Fertilisation
(iii) Implantation of zygote.
(c) What happens to the lining of uterus:
(i) before release of a fertilised egg?
(ii) if no fertilisation occurs?

115. What is regeneration? State a reason why a more complex organism cannot give rise to new individuals through this method.

116. What is reproduction? What are its two types? Which one of the two confers new characteristics on the off springs and how?

117. List any four reasons for vegetative propagation being practised in the growth of some type of plants.

118. Write the full form of DNA. Name the part of the cell where it is located. Explain its role in the process of reproduction of the cell.

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

120. List any three differences between pollination and fertilisation.

121. Draw a longitudinal section of a flower and label the following parts:
(i) Part that produces pollen grain.
(ii)Part that transfers male gametes to the female gametes.
(iii) Part that is sticky to trap the pollen grain.
(iv) Part that develops into a fruit.
122. (a) Explain the role of placenta in the
development of human embryo.
(b) Give example of two bacterial and two viral sexually transmitted diseases. Name the most effective contraceptive which prevents spread of such diseases.

123. Why is DNA copying an essential part of the process of reproduction?

124. (a) What is fragmentation in organism?
Name a multicellular organism which reproduces by this method.
(b) What is regeneration in organism? Describe regeneration in Planaria with the help of a suitable diagram..

125. With the help of suitable diagrams, explain the various steps of budding in Hydra.

126. (a) What is spore formation?
(b) Draw a diagram showing spore formation in Rhizopus.
(c) List two advantages for organisms
to reproduce themselves through spores.

127. State one genetically different feature between sperms and eggs of humans. What is its consequence?

128. Define the term puberty. List two changes observed in girls at the time of puberty.

129. “DNA copies generated during reproduction will be similar but may not be identical to the original.” Justify this statement.

130. Draw a diagram of a human female reproductive system and label the part
(i) that produces egg
(ii) where fusion of egg and sperm take place
(iii) where zygote is implanted
What happens to human egg when it is not fertilised?

Section D (Five marks questions)

131. (a) Write the functions of the following parts in human female reproductive system:
(i) Ovary (ii) Oviduct (iii) Uterus (iv) Fallopian tube.How does the embryo get nourishment inside the mother's body? Explain in brief.
(b) Describe the structure and function of placenta.

132. a) Name the human male reproductive organ that produces sperms and also secretes a hormone. Write the functions of the secreted hormone.
(b) Name the parts of the human female reproductive system where
(i) fertilisation takes place,
(ii) implantation of the fertilised egg occurs.
Explain how the embryo gets nourishment inside the mother's body.

133. (a) Name the respective part of human female reproductive system:
(i) that produces eggs.
(ii) where fusion of egg and sperm takes place, and
(iii) where zygote get implanted.
(b) Describe in brief what happens to the zygote after it gets implanted.

134. (a) Give one example each of a unisexual and a bisexual flower.
(b) Mention the changes a flower undergoes after fertilisation.
(c) How does the amount of DNA remain constant though each new generation is a combination of DNA copies of two individuals?

135. What is pollination? How does it occur in plants? How does pollination lead to fertilization? Explain

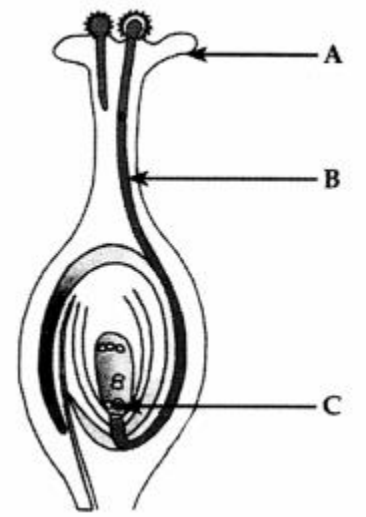
136. Write the two causes of human population explosion. Explain with the help of suitable examples how this explosion can be checked.

137. (a) Draw a sectional view of human female reproductive system and label the following parts:
(i) Where the development of egg occurs.
(ii) Where fertilization takes place.
(b) Describe the changes the uterus undergoes:
(i) to receive the zygote.
(ii) if zygote is not formed.

138. (a) What is placenta? Explain its function in human female (b) List four ways of preventing pregnancy. State two advantages of using such preventive methods.

139. a) Identify A, B and C in the given diagram and write their functions.

(b) Mention the role of gamete and zygote in sexually reproducing organisms.



141. (a) List three distinguishing features between sexual and asexual types of reproduction (b) Explain why more variations are observed in the off springs of sexually reproducing organisms?

142. Draw a diagram of human female reproductive system and label the part
(i) that produces eggs.
(ii) where fusion of egg and sperm takes place.
(iii) where zygote is implanted.
What happens to human egg when it is not fertilized?

143. Describe in brief the role of (i) testis, (ii) seminal vesicle, (iii) vas deferens, (iv) ureter and (v) prostate gland in human male reproductive system. (2012 D)

144. Define the terms pollination and fertilisation. Draw a diagram of a pistil showing pollen tube growth into the ovule and label the following:
pollen grain, male gamete, female gamete, ovary.

145. What is binary fission in organisms? With the help of suitable diagrams, describe the mode of reproduction in Amoeba.