BIOLOGY

BOOKS - MCGROW HILL EDUCATION BIOLOGY (HINGLISH)

REPRODUCTION AND GROWTH

Elementary Questions

1. In which of the following plants vegetative reproduction takes place with the help of

bulbils?

A. Colocasia

B. Zingiber

C. Agave

D. Vallisneria

Answer: C

View Text Solution

2. Scion is a term in relation to

A. layering

B. cutting

C. grafting

D. micropropagation

Answer: C

View Text Solution

3. Which of the following is propagated by means of cuttings?

A. sugarcane

B. coffee

C. citrus

D. all of these

Answer: D

View Text Solution

4. Stem cuttings are commonly used for propagation in

A. rubber

B. mangoes

C. sugarcane

D. jasmine

Answer: C

View Text Solution

5. A method in which roots are induced on the stem while it is still attached to the parent plant is called

A. layering

B. cutting

C. grafting

D. vivipary

Answer: A

View Text Solution

6. Clones are

A. plants raised from a single parent

B. population of plants produced vegetatively

C. genetically similar to the parent plant

D. all of the above

Answer: D

View Text Solution

7. What is parthenogenesis?

A. development of fruit without hormones

B. development of fruit without fertilisation

C. development of egg without fertilisation

D. development of embryo without fertilisation

Answer: D

View Text Solution

8. What is micropropagation?

A. germination of seed with cotyledons above the soil

B. a technique to obtain new plants by cultivating the cells or tissues in culture medium

C. the mature stage of endosperm

D. to manufacture hormones

Answer: B

View Text Solution

9. A clone is a group of individuals obtained through

A. hybridisation

B. cross-pollination

C. self-pollination

D. micropropagation

Answer: D

View Text Solution

10. Which one of the following is the true definition of totipotent cell?

A. an undifferentiated cell capable of developing into an organ

B. an undifferentiated cell capable of developing into a system or entire plant

C. cells that lack the capability of differentiating into an organ or system

D. undifferentiated cells capable of developing into complete embryo

Answer: B

View Text Solution

11. Cellular totipotency was for the first time demonstrated by

A. F.C. Steward

B. P. Maheshwari

C. W.H.Muir

D. Y.P.S. Bajaj

Answer: A

View Text Solution

12. Pollination is best defined as

A. the transference of pollens from anthers to stigma

B. the germination of pollen grains

C. visiting of flowers by ants

D. the growth of pollen tube in the ovule

Answer: A

View Text Solution

13. Pollination is a characteristic of

A. angiosperms

B. pteridophytes

C. bryophytes

D. all of the above

Answer: A

View Text Solution

14. Self-pollination means

A. germination of pollens within the anther

B. transference of pollens from anthers to the stigma within the same flower

C. transference of pollens from one flower to another on the same plant

D. presence of male and female sex organs in the same flower

Answer: B

View Text Solution

15. When pollen of a flower is transferred to the stigma of another flower of the same plant the pollination is referred to as

A. autogamy

B. allogamy

C. xenogamy

D. geitonogamy

Answer: D

View Text Solution

16. Cross-pollination is advantageous because it results in

A. formation of weaker progeny

B. formation of better progeny

C. formation of male offspring

D. formation of female offspring

Answer: B

View Text Solution

17. The allogamy is best favoured by

A. chasmogamy

B. cleistogamy

C. dicliny

D. homogamy

Answer: C

View Text Solution

18. In same flowers, the stamens and pistil reach maturity at the same time. It is known as

A. porogamy

B. mesogamy

C. siphonogamy

D. homogamy

Answer: D

View Text Solution

19. How is pollination brought about in maize?

A. by insects

B. by bats

C. by wind

D. by water

Answer: C

View Text Solution

20. Pollination by bats is called

A. cheiropterophily

B. ornithophily

C. malacophily

D. entomophily

Answer: A

View Text Solution

21. Hydrophily is best demonstrated by

A. Nelumbium

B. Vallisneria

C. Nymphaea

D. Ranunculus

Answer: B

View Text Solution

22. Entomophily is pollination by

A. water

B. animals

C. air

D. insects

Answer: D

View Text Solution

23. Insect pollinated flowers usually possess

A. sticky pollens with rough surface

B. large quantities of pollens

C. brightly coloured pollens

D. dry pollens with smooth surface

Answer: A

View Text Solution

24. Flowers, which are pollinated by insects, are

A. colourless

B. small in size

C. large, coloured and scented

D. very large in size

Answer: C

View Text Solution

25. Lever mechanism for pollination is characteristic feature of

A. Ficus

B. Salvia

C. Ocimum

D. Ranunculus

Answer: B

View Text Solution

26. In Salvia the pollination is affected by

A. water

B. air

C. animals

D. insects

Answer: D

View Text Solution

27. In Ficus religiosa (peepal) the pollination is affected by

A. water

B. insects

C. birds

D. air

Answer: B

View Text Solution

28. The insect Blastophaga grossorum is associated with the pollination of

A. mango

B. Ficus

C. paddy

D. Nelumbium

Answer: B

View Text Solution

29. Which of the following terms describes pollination by the agency of ants?

A. cheiropterophily

B. entomophily

C. ornithophily

D. myrmecophily

Answer: D

View Text Solution

30. What is emasculation?

A. pollination between flowers of different plants

B. pollination between flowers of same plant

C. artificial pollination

D. removal of the stamens of a plant to prevent self pollination

Answer: D

View Text Solution

31. In angiosperms meiosis occurs when

A. flowers are formed

B. pollen grains are formed

C. seeds are formed

D. seeds germinate

Answer: B

View Text Solution

32. One of the most resistant biological materials known is

A. sporopollenin

B. hemicellulose

C. lignocellulose

D. lignin

Answer: A

View Text Solution

33. How many pollen mother cells will produce 1000 pollen grains?

A. 100

B. 200

C. 300

D. 250

Answer: D

View Text Solution

34. In angiosperms how many microspore mother cells are required to produce 100 pollen grains?

A. 25

B. 50

C. 75

D. 100

Answer: A

View Text Solution

35. Generally the number of integuments in the ovule of angiosperms and gymnosperms is

A. one and one

B. two and one

C. two and two

D. one and two

Answer: B

View Text Solution

36. When the hilum, chalaza and micropyle of the ovule lie in the same longitudinal axis, it is known as

A. anatropous ovule

B. amphitropous ovule

C. campylotropus ovule

D. orthotropous ovule

Answer: D

View Text Solution

37. Fertilisation means

A. transfer of male gamete to female gamete

B. adhesion of male and female reproduction organs

C. fusion of nuclei of male and female gametes

D. the shedding of gametes from a reproductive organ

Answer: C

View Text Solution

38. Which of the following event is NOT directly affected by light in a vegetable garden?

A. seed germination

B. food manufacture

C. fertilisation

D. flowering

Answer: C

View Text Solution

39. External water is NOT essential for fertilisation in

A. thallophyta

B. bryophyta

C. tracheophyta

D. spermatophyta

Answer: D

View Text Solution

40. Fertilisation in which male gametes are carried through pollen tube is known as

A. chalazogamy

B. siphonogamy

C. syngamy

D. porogamy

Answer: B

View Text Solution

41. Double fertilisation is characteristic of

A. angiosperms

B. algae

C. gymnosperms

D. bryophytes

Answer: A

View Text Solution

42. One of the essential organs for fertilisation is

A. mature ovule

B. green sepals

C. coloured petals

D. juicy fruit

Answer: A

View Text Solution

43. Double fertilisation means

A. fusion of eggs and pollen nucleus of two pollen nuclei

B. fusion of one male gamete with the egg and other with the secondary nucleus

C. fusion of two eggs

D. fusion of one male gamete with the egg and other with synergids

Answer: B

View Text Solution

44. Syngamy refers to

A. fusion of one of the sperms with secondary nucleus

B. fusion of one of the sperms with the egg

C. fusion of one of the sperms with the egg and other with the secondary nucleus

D. fusion of one of the sperms with synergid

Answer: B

View Text Solution

45. Milky water of green coconut is

A. liquid of female gametophyte

B. liquid endosperm

C. liquid chalaza

D. liquid nucellus

Answer: B

View Text Solution

46. Morphologically the white fluffy edible mass in maize is

A. seed coat

B. endosperm

C. perisperm

D. seed

Answer: B

View Text Solution

47. The megasporangium of the angiosperms on maturation gives rise to

A. cotyledons

B. seed

C. fruit

D. endosperm

Answer: B

View Text Solution

48. Collar like outgrowth arising from the base of ovule and forming a sort of third integument is known as

A. caruncle

B. aril

C. operculum

D. perisperm

Answer: B

View Text Solution

49. In coconut black covering (thin layer) adherent to the kernel around the endosperm is

A. mesocarp

B. seed coat

C. pericarp

D. epicarp

Answer: B

View Text Solution

50. Which one is primary sex organ?

A. penis

B. scrotum

C. testis

D. prostrate

Answer: C

View Text Solution

51. In human male, the testes are located in

A. thoracic cavity

B. abdominal cavity

C. pericardia cavity

D. extra abdominal scrotal cavity

Answer: D

View Text Solution

52. The testes are abdominal in

A. elephant

B. goat

C. kangaroo

D. rabbit

Answer: A

View Text Solution

53. Testes are masses of coiled

A. uriniferous tubules

B. malpighian tubules

C. vasa efferentia

D. seminiferous tubules

Answer: D

View Text Solution

54. In the case of mammals testes are extra abdominal situated in scrotal sacs because

A. there is lack of space in abdomen

B. scrotal sacs have less temperature than abdomen, which is essential for maturation of sperms

C. scrotal sacs have high temperature than abdomen, which is essential

D. it helps in easy discharge of sperms during copulation

Answer: B

View Text Solution

55. Failure of descending testis into the scrotum is known as

A. paedogenesis

B. castration

C. cryptorchidism

D. impotency

Answer: C

View Text Solution

56. Sperm are produced in the

A. seminiferous tubules

B. interstitial cells

C. vas deferens

D. prostate gland

Answer: A

View Text Solution

57. Mature sperm are stored in the

A. seminiferous tubules

B. vas deferens

C. epididymis

D. seminal vesicles

Answer: C

View Text Solution

58. Which of the following is an accessory reproductive gland in male mammals?

A. prostate gland

B. gastric gland

C. mushroom shaped gland

D. Inguinal gland

Answer: A

View Text Solution

59. Which one of the following is found in the human male but NOT in the female?

A. Cowper's gland

B. Rectal gland

C. Prostate gland

D. Bartholin's gland

Answer: C

View Text Solution

60. Each ejaculate of a man contains about how many sperm?

A. 200

B. 2000

C. 200000

D. 200000000

Answer: D

View Text Solution

61. Testosterone is secreted by which endocrine part of testis?

A. cells of Leydig

B. seminiferous tubules

C. tunica albugenia

D. Sertoli cells

Answer: A

View Text Solution

62. Testosterone, the male sex hormone, is synthe-sised in the

A. seminiferous tubules

B. interstitial cells

C. vas deferens

D. prostate gland

Answer: B

View Text Solution

63. The abdominal passage, which connects the abdominal cavity with the scrotal sac in mammals, is known as

A. spermatic canal

B. neurenteric canal

C. inguinal canal

D. haversian canal

Answer: C

View Text Solution

64. Graafian follicle are characteristically found in the

A. ovary of mammal

B. ovary of frog

C. testis of mammal

D. thyroid of mamal

Answer: A

View Text Solution

65. When a mature egg leaves the ovary, it enters the

A. follicle

B. endometrium

C. interstitial cells

D. oviduct

Answer: D

View Text Solution

66. Fertilisation takes place in the

A. follicle

B. oviduct

C. uterus

D. vestibule

Answer: B

View Text Solution

67. In female mammal insemination occurs in

A. vagina

B. oviduct

C. vulva

D. uterus

Answer: A

View Text Solution

68. The hormone responsible for inducing spermatogenesis and oogenesis is

A. FSH

B. estrogen

C. LH

D. androgen

Answer: A

View Text Solution

69. Number of spermatozoa, a single primary spermatocyte ultimately produces in spermatogenesis, is

A. one

B. two

C. four

D. eight

Answer: A::C

View Text Solution

70. The sperm produces substances of enzymatic nature of sperm lysins. In mammals it is called

A. hyaluronidase

B. androgamone

C. hyaluronic acid

D. cryanogamone

Answer: A

View Text Solution

71. Rupturing of follicles and discharge of ova is known as

A. copulation

B. conjugation

C. ovulation

D. oviposition

Answer: C

View Text Solution

72. The hormone that is present in greatest concentration during the time of ovulation in a female is

A. FSH

B. progesterone

C. LH

D. estrogen

Answer: C

View Text Solution

73. The oestrous or menstrual cycle begins with a breaking down of the womb wall. The ovum or egg is released

A. at the beginning of the cycle

B. about half way through the cycle

C. about 20 days through the cycle

D. at the end of the cycle

Answer: B

View Text Solution

74. In 28-day human ovarian cycle, ovulation occurs on

A. day 1

B. day 10

C. day 14

D. day 28

Answer: C

View Text Solution

75. After ovulation endocrine part of ovary is

A. corpus luteum

B. corpus callosum

C. corpus spongiosum

D. corpus albicans

Answer: A

View Text Solution

76. Which of the following hormones maintains the integrity of the uterine wall during pregnancy?

A. estrogen

B. progesterone

C. oxytocin

D. intermedin

Answer: B

View Text Solution

77. During pregnancy, the production of ova in ovary is prevented by

A. estrogen

B. relaxin

C. progesterone

D. prolactin

Answer: C

View Text Solution

78. Menstruation is triggered by an abrupt decline in the amount of

A. luteinising hormone

B. follicle-stimulating hormone

C. estrogen

D. progesterone

Answer: D

View Text Solution

79. The menstrual cycle in mammals is accomplished with the help of

A. progesterone and estrogen

B. hormones from pituitary gland only

C. hormones from placenta only

D. hormones from ovary only

Answer: A

View Text Solution

80. Menopause is the stage in human female when

A. menstruation starts

B. puberty begins

C. menstruation stops and reproductive capacity is arrested

D. none of the above

Answer: C

View Text Solution

81. In human female the fertilised eggs gets implantation in uterus

A. after two months of fertilisation

B. after one month of fertilisation

C. after 3 weeks of fertilisation

D. after about 7 days of fertilisation

Answer: D

View Text Solution

82. The limited period of sexual receptive that occurs around the time of ovulation in all female mammals except humans called

A. menstruation

B. luteinisation

C. oogenesis

D. estrous

Answer: D

View Text Solution

83. Monoesrous animals have

A. one ovulation each month

B. one breeding season in a yea

C. one menses each month

D. one egg

Answer: B

View Text Solution

84. Gestation period is the duration

A. of fertilisation

B. between egg growth and ovulation

C. none of the above

D. between fertilisation and parturition

Answer: D

View Text Solution

85. Mammalian egg contains negligible yolk so the survival of such embryo is made possible by the fact that they are

A. nourished through placenta

B. too small and need no much food

C. milk fed

D. none of the above

Answer: A

View Text Solution

86. The expulsion of completely, developed foetus from the uterus is known as

A. ovulation

B. oviposition

C. gestation

D. parturition

Answer: D

View Text Solution

87. In pregnant woman having prolonged labour pains, if the childbirth has to be

hastened, it is advisable to administer a hormone that can

A. activate the smooth muscles

B. increase the metabolic rate

C. release glucose into the blood

D. stimulate the ovary

Answer: A

View Text Solution

88. Contraceptive oral pills help in birth control by

A. preventing ovulation

B. killing the ova

C. killing the sperms

D. forming barriers between sperms and ova

Answer: A

View Text Solution

89. The fertilisation cone, which pulls the sperm into the egg, is formed from

A. acrosome of the sperm

B. acrosomal process of the sperm

C. vitelline layer of the egg

D. plasma membrane of the egg

Answer: D

View Text Solution

90. After a sperm has penetrated an ovum in the process of fertilisation, entry of further sperms is prevented by

A. development of the pigment coat

B. development of the vitelline membrane

C. condensation of yolk

D. formation of fertilisation membrane

Answer: D

View Text Solution

91. Natural parthenogenesis occurs in

A. honeybee

B. frog

C. man

D. rabbit

Answer: A

View Text Solution

92. Placenta is the region, where

A. foetus is supplied by maternal blood

B. embryo is attached to mother by umbilical cord

C. foetus receives maternal blood and nutrition

D. embryo enclosed by membranes

Answer: C

View Text Solution

93. Placenta in man

A. yolk sac

B. primitive

C. haemochorial

D. syndesmochorial

Answer: C

View Text Solution

94. Copper-T is a device that prevents

A. fertilisation

B. implantation of blastocyst

C. egg maturation

D. ovulation

Answer: B

View Text Solution

Higher Order Thinking Questions

1. During grafting rootstock is generally derived from a plant

A. efficient in water and mineral absorption

B. resistant to diseases

C. that grows strong and healthy branches

D. all of the above

Answer: D

View Text Solution

2. The combination of auxin and cytokinin which likely to induce shoot differentiation in tobacco callus is

A. lower concentration of cytokinin and higher concentration of auxin

B. higher concentration of cytokinin and lower concentration of auxin

C. only auxin and no cytokinin

D. only cytokinin and no auxin

Answer: B

View Text Solution

3. After culturing the anther of a plant, a few diploid plants were got along with haploid plants. Which of the following parts might have given rise to diploid plants?

A. vegetative cell of pollen

B. cells of anther wall

C. generative cell of pollen

D. intine of pollen wall

Answer: B

View Text Solution

4. The chief pollinators of our agri-horticultural corps are

A. moths

B. beetles

C. butterflies

D. bees

Answer: D

View Text Solution

5. A very close relationship between flower and pollinating agent is best exhibited by

A. Yucca

B. Avena

C. Salmalia

D. Pisum

Answer: A

View Text Solution

6. Seeds are called products of sexual reproduction because they

A. give rise to new plants

B. are formed by fusion of gametes

C. are formed by fusion of pollen tubes

D. can survive for longer periods

Answer: B

View Text Solution

7. How many mature eggs does each ovary of a non-pregnant fertile woman typically produce each year?

A. 6

B. 12

C. infinite

D. depends on age fo woman

Answer: B

View Text Solution

8. Fertilizins are the substances secreted from

A. mature egg

B. sperms

C. immature egg

D. polar pody

Answer: B

View Text Solution

9. What would happen if vas efferentia of man were cut?

A. sperms become non-nucleate

B. semen is without sperms

C. sperms are nonmotile

D. spermatogenesis does not occur

Answer: B

View Text Solution

10. For a few days after delivery, the mammary glands of human females secrete a highly nutritive fluid, which is known as

A. secretin

B. colostrums

C. rennin

D. serotonin

Answer: B

View Text Solution