Human Development A Life Span View 8th edition KailJohn Test Bank

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TRUE/FALSE

1 : A typical fertilized egg contains a total of 22 pairs of chromosomes.
A : true
B : false

Correct Answer : B

2 : Your phenotype includes physical, psychological, and behavioral features.
A : true
B : false

Correct Answer : A

3 : When the chromosomes in a pair are the same, they are said to be heterozygous.
A : true
B : false

Correct Answer : B

4 : While characterized as a progressive and fatal disorder, symptoms of Huntingtons disease can be eliminated through a special diet.
A : true
B : false

Correct Answer : B

5 : Monozygotic twins come from a single egg.
A : true
B : false

Correct Answer : A

6 : A heritability coefficient is used to calculate the extent to which a characteristic is the result of genetics.
A : true
B : false

Correct Answer : A

7 : Nonshared environmental influences tend to make siblings in a family more similar to each other.
A : true
B : false

Correct Answer : B

8 : The correct order of prenatal development is zygote to embryo to fetus.
A : true
B : false

Correct Answer : A

9 : Implantation occurs when the zygote burrows into the placenta.
A : true
B : false

Correct Answer : B

10 : Hair and skin originally develops in the ectoderm layer of a zygote.
A : true
B : false

Correct Answer : A

11 : The embryo is connected to the uterus via the fallopian tube.
A : true
B : false

Correct Answer : B

12 : The period of the fetus is the longest period of prenatal development.
A : true
B : false

Correct Answer : A

13 : The modern age of viability begins at 16 weeks.
A : true
B : false

Correct Answer : B

14 : Pregnant women who fail to consume enough vitamin A are at risk for giving birth to a baby with spina bifida.
A : true
B : false

Correct Answer : B

15 : Common symptoms of s spectrum disorder (FASD) include facial deformities, deafness, and intellectual disability (formally known as mental retardation).
A : true
B : false

Correct Answer : B

16 : Damage from teratogens is sometimes not evident until later in life.
A : true
B : false

Correct Answer : A

17 : An ultrasound uses sound waves to create an image of a fetus.
A : true

B : false

Correct Answer : A

18 : Research has demonstrated that childbirth techniques designed to reduce pain during labor do not work.
A : true
B : false

Correct Answer : B

19 : The condition of hypoxia involves a reduction in the flow of oxygen to the brain.
A : true
B : false

Correct Answer : A

20 : Cephalocaudal development proceeds from your extremities toward your body.
A : true
B : false

Correct Answer : B

MULTIPLE CHOICE

21 : The threadlike structures in the nucleus of a cell that contain genetic material are called
A : chromosomes.
B : germ discs.
C : ectoderms.
D : phenotypes.

Correct Answer : A

22 : The first ____ pairs of chromosomes are called autosomes and the _____pair are called sex chromosomes.
A : 2; 3rd
B : 10; 11th
C : 22; 23rd
D : 46; 47th

Correct Answer : C

23 : Gene is approached by a mad geneticist who says he will pay Gene either $100 for each pair of his autosomes or $500 for each pair of his sex chromosomes. Assuming Gene wants to make as much money as possible, which offer should he take?
A : $100 for each pair of autosomes
B : $500 for each pair of sex chromosomes
C : Either one, because Gene will make the same amount with both offers
D : Neither one, because humans have neither autosomes nor sex chromosomes

Correct Answer : A

24 : When looking through a microscope at an entire set of human male chromosomes, how would you be able to differentiate an autosome pair from a sex chromosome pair?
A : The sex chromosome pair would be about 10 times larger than the autosome pair.
B : The circular-shaped cells would be the autosomes and the square shapes would be the sex chromosomes.
C : There would be three cells in the autosome pair and two cells in the sex chromosome pair.
D : The shape of the sex chromosomes would differ, whereas each autosome pair would look identical.

Correct Answer : D

25 : A sperm cell contains a total of 22
A : genes.
B : chromosomes.
C : autosomes.
D : sex cells.

Correct Answer : C

26 : What combination would result in a boy?
A : A 17th pair of chromosomes with one X and one Y
B : A 23rd pair of chromosomes with one X and one Y
C : A 17th pair of chromosomes with two Xs
D : A 23rd pair of chromosomes with two Xs

Correct Answer : B

27 : ThThe functional units of heredity are
A : genes.
B : neurotransmitters produced in the brain.
C : phenotypes.
D : basic chemical compounds that form the single helix of a DNA molecule.

Correct Answer : A

28 : Human DNA is composed of a total of ____ different nucleotide bases.
A : 4
B : 23
C : 444
D : 30,000

Correct Answer : A

29 : Genes provide the cell with a specific set of ____ instructions.
A : hormonal
B : biochemical
C : in vitro
D : bioelectric

Correct Answer : B

30 : The average child has approximately ____ genes.

A : 25
B : 25,000
C : 25,000,000
D : 25,000,000,000

Correct Answer : B

31 : Kyoko is 5 feet, 11 inches tall, plays tennis, and is an all-around nice person. This is a description of Kyokos
A : allele.
B : genotype.
C : homozygosity.
D : phenotype.

Correct Answer : D

32 : Genotype is to phenotype as
A : homozygous is to heterozygous.
B : nurture is to nature.
C : DNA is to deoxyribonucleic acid.
D : chromosome pattern is to physical, behavioral, and psychological features.

Correct Answer : D

33 : Which process can best be explained by alleles?
A : The fact that phenotypes produce genotypes
B : The formation of identical twins through the splitting of a fertilized egg
C : The instructions for hair color come from two sources on the chromosome
D : The teratogenic effects associated with fetal alcohol spectrum disorder (FASD)

Correct Answer : C

34 : Linda has one allele for curly hair and another for straight hair. Lindas alleles are
A : polyzygotic.
B : dizygotic.
C : homozygous.
D : heterozygous.

Correct Answer : D

35 : How would you create an individual who will definitely have blue eyes?
A : Make sure he has a pair of homozygous chromosomes for blue eyes.
B : Make sure he has a pair of heterozygous chromosomes for eye color.
C : Make sure he has a pair of alleles for eye color.
D : Make sure he has one recessive gene for blue eyes.

Correct Answer : A

36 : Kirk is heterozygous for cheek dimples but is born with big dimples in both cheeks. Apparently, the allele for cheek dimples is
A : dominant.
B : sex-linked.
C : recessive.

D : polygenetic.

Correct Answer : A

37 : If tallness is dominant and designated as T, and shortness is recessive and designated as s, who would likely be short?
A : Blake, who is sT
B : Adam, who is Ts
C : Alicia, who is ss
D : Miley, who is TT

Correct Answer : C

38 : Which best exemplifies the concept of incomplete dominance?
A : An individual with two alleles for baldness who has long hair
B : An individual with two alleles for shyness who is shy
C : An individual with one allele for obesity and another for thinness who is of average weight
D : An individual with a single allele for aggression who is violent

Correct Answer : C

39 : Which statement concerning the sickle-cell trait is true?
A : Individuals with the trait have the dominant phenotype but possess the recessive genotype.
B : Individuals with the trait have both a dominant and recessive allele for the disorder.
C : Individuals with the trait are genetically predisposed to the disorder but cannot display any symptoms.
D : Individuals with the trait tend to have the most severe form of the disease.

Correct Answer : B

40 : Dr. Fry has just been informed that his son has sickle-cell trait. As a knowledgeable physician, Dr. Fry would realize that his sons body is most likely to experience
A : excess levels of body fat.
B : serious oxygen deprivation.
C : decreased lung capacity.
D : blindness.

Correct Answer : B

41 : Janakas two-year-old daughter is intellectually disordered (formerly known as mentally retarded) due, in part, to a diet that included fish, bread, and dairy products. The most likely diagnosis for Janakas daughter is that she has
A : Turners syndrome.
B : Huntingtons disease.
C : Tay Sachs disease.
D : Phenylketonuria (PKU).

Correct Answer : D

42 : Huntingtons disease is an unusual genetic disorder in that it is a fatal disease caused by dominant alleles that
A : impact late enough in life so that the individual can reproduce.
B : are controllable through diet.

C : both must come from the mother.
D : strike only males.

Correct Answer : A

43 : Which physical characteristic is most indicative of an individual with Down syndrome?
A : An enlarged head
B : A fold of skin over each eyelid
C : A long neck
D : A larger nose than same-age peers

Correct Answer : B

44 : As a geneticist, you found that afetus has 47 chromosomes. What would be the most likely conclusion drawn from this information?
A : The child has Down syndrome
B : The child has sickle-cell anemia
C : The child has phenylketonuria (PKU)
D : This is a normal number of chromosomes

Correct Answer : A

45 : Because of his accurate knowledge of genetics and disorders, Benson knows that his newborn son has no chance of having
A : Turners syndrome.
B : Kleinfelters syndrome.
C : Huntingtons disease.
D : Down syndrome.

Correct Answer : A

46 : As a behavioral geneticist, Juan would most likely be studying
A : the maze-learning behavior of rats.
B : the evolution of eyesight over the life span.
C : the inheritance of behavioral and psychological traits.
D : the physiological structure of a gene.

Correct Answer : C

47 : Which statement best exemplifies the basic premise of behavioral genetics?
A : Your personality is all in your genes
B : Your personality is all in your environment
C : People are either very open to new experiences or avoid new experiences at all costs
D : Openness to new experience is not an either/or proposition, but represents a wide range of reactions

Correct Answer : D

48 : If a physician informed you that your speech disorder was the result of problems on chromosomes 4, 7, and 15, you would rightly conclude that the disorder is always classifiable as
A : recessive.
B : polygenetic.
C : dominant.

D : sex-linked.

Correct Answer : B

49 : John and Wayne have the exact same genes. This indicates that they must be
A : dizygotic twins.
B : monozygotic twins.
C : heterozygous.
D : co-dominant.

Correct Answer : B

50 : As dizygotic twins, Maya and Naomi
A : are genetically identical.
B : must have come from the same fertilized egg.
C : share all phenotypes.
D : share about half of their genes.

Correct Answer : D

51 : José, who was adopted at birth, is found to have personality characteristics more similar to his biological mom than to his adoptive mom. How should you interpret this data?
A : Personality appears to be a polygenetic characteristic.
B : Personality characteristics are learned.
C : Personality characteristics are influenced by genes.
D : Personality characteristics appear to be recessive.

Correct Answer : C

52 : Which result would not support the idea that genes play a significant role in behavior?
A : Finding dizygotic twins to be more similar than monozygotic twins
B : Finding children to be more similar to their biological parents than to their adoptive parents
C : Finding similarities between biological siblings
D : Finding monozygotic twins to be more similar than pairs of unrelated individuals

Correct Answer : A

53 : The concept that genotypes are not the only things that control traits involves the fact that
A : dizygotic twins are virtually genetically identical.
B : each genotype can produce a variety of phenotypes.
C : recessive genes are more commonly expressed than dominant genes.
D : the environment has little impact on behavior.

Correct Answer : B

54 : After creating a childs DNA profile, behavioral geneticists can then look to see
A : if the genotype is associated with behavior phenotypes.
B : if the DNA links the child to a certain geographic location.
C : if the child is going to be cared for by adoptive parents.
D : if the child ranks high or low eugenically.

Correct Answer : A

55 : Heredity and environment
A : interact dynamically throughout development.
B : act independently throughout development.
C : interact dynamically in childhood and independently in adulthood.
D : act independently in childhood and interact dynamically in adulthood.

Correct Answer : A

56 : As a behavioral geneticist, Professor Klink is most likely to calculate the extent to which depression is inherited using a ____ coefficient.
A : nonshared
B : DNA
C : polygenetic
D : heritability

Correct Answer : D

57 : A heritability coefficient of ____ means about 50 percent of the difference between people on a specific characteristic is the result of heredity.
A : 5
B : 5
C : 50
D : 500

Correct Answer : A

58 : _____ occurs when an individual intentionally seeks out an environment that matches characteristics driven by his or her genes.
A : Passive gene-environment interactions
B : Incomplete dominance
C : Niche-picking
D : Polygenetic inheritance

Correct Answer : C

59 : Which individual with a genetic predisposition toward being extroverted is demonstrating successful niche-picking?
A : Wink, who is a game-show host
B : Wilbur, who is a horse trainer
C : Sebastian, who is a hermit who lives in a cave by himself
D : Dexter, who spends a lot of time studying in the library

Correct Answer : A

60 : Nonshared environmental influences involve forces that make siblings
A : act in virtually identical ways.
B : homozygous.
C : dizygotic twins.
D : different from one another.

Correct Answer : D

61 : Jack and Jill are twins. Because he is a boy, Jacks parents encourage him to run. However,

they discourage Jill from engaging in athletic activity. As a result, Jack is much faster at running up a hill than Jill. The difference in Jack and Jills behavior is best explained by
A : nonshared environmental influences.
B : active gene-environment relations.
C : polygenetic effects.
D : niche-picking.

Correct Answer : A

62 : Which period is not considered part of prenatal development?
A : Period of the fetus
B : Period of the zygote
C : Period of the neonate
D : Period of the embryo

Correct Answer : C

63 : Prenatal development begins
A : with sperm production.
B : with ovulation.
C : at conception.
D : at implantation into the uterus.

Correct Answer : C

64 : The period of the ____ lasts for approximately two weeks.
A : embryo
B : zygote
C : fetus
D : neonate

Correct Answer : B

65 : The uniting of the egg and sperm (conception) typically takes place in the
A : uterus.
B : testes.
C : fallopian tube.
D : ovary.

Correct Answer : C

66 : If Agnieszka found out that she was conceived through in vitro fertilization, she would know for certain that
A : she was conceived in a Petri dish.
B : she was conceived inside a fallopian tube.
C : her biological parents were not the same as the parents who reared her.
D : the woman who carried her as a baby was not the woman who reared her.

Correct Answer : A

67 : Which event occurs following in vitro fertilization?
A : A fertilized egg is placed directly into the uterus.
B : A sperm is injected directly into the fallopian tube.

C : A fertilized egg is directly placed in the ovary.
D : A single sperm is injected directly into a fertilized egg.

Correct Answer : A

68 : Which statement concerning preimplantation genetic screening (PGS) is false?
A : It is usually used with couples known to be at risk for genetic disorders.
B : It cannot be used to determine if a child-to-be is male or female.
C : If parents are not pleased with the test results, they can have a fertilized egg discarded.
D : It can be used to determine a child-to-bes hair color.

Correct Answer : B

69 : Whose behavior best exemplifies eugenics?
A : Dr. Green, who uses an in vitro fertilization technique
B : Dr. Black, who allows only certain individuals to mate
C : Dr. White, who studies the effects of thalidomide on prenatal development
D : Dr. Brown, who closely monitors the nutrition of expectant mothers

Correct Answer : B

70 : A developing human that is traveling from a fallopian tube to the uterus would most accurately be described as a(n)
A : embryo.
B : fetus.
C : zygote.
D : amnion.

Correct Answer : C

71 : What began as a single fertilized egg has just separated into two distinct eggs. This indicates the formation of _____ twins that has occurred during the _____ period of development.
A : fraternal; zygotic
B : fraternal; embryonic
C : identical; zygotic
D : identical; embryonic

Correct Answer : C

72 : The point at which a zygote burrows into the uterine wall is referred to as
A : fertilization.
B : implantation.
C : niche-picking.
D : dilation.

Correct Answer : B

73 : A physician has just informed pregnant Moesha that the human organism developing inside of her has just begun to show differentiation of its cells. As a knowledgeable student, you would know that such an organism is technically called a(n)
A : embryo.
B : zygote.
C : fetus.

D : neonate.

Correct Answer : B

74 : Mi Lei is pregnant and her body is currently experiencing the event that triggers hormonal changes that will prevent further menstruation. This event is called
A : implantation.
B : conception.
C : dilation.
D : effacement.

Correct Answer : A

75 : The ____ is the cluster of cells in the center of the zygote that will eventually develop into the baby.
A : Amnion
B : stem cell
C : germ disc
D : placenta

Correct Answer : C

76 : The ____ is the structure through which a mother and an embryo exchange waste and nutrients.
A : amnion
B : stem cell
C : germ disc
D : placenta

Correct Answer : D

77 : The developing human organism that has just become completely embedded in the wall of the uterus is called the
A : amnion.
B : fetus.
C : zygote.
D : embryo.

Correct Answer : D

78 : At five weeks after conception, a developing human is most accurately called a(n)
A : embryo.
B : zygote.
C : fetus.
D : neonate.

Correct Answer : A

79 : Hair and the nervous system develop during the embryonic period from cells contained in the ____ layer.
A : mesoderm
B : endoderm
C : placenta

D : ectoderm

Correct Answer : D

80 : Damage to cells in the embryos ____ layer would be most likely to result in the development of a defective digestive system.
A : endoderm
B : placenta
C : ectoderm
D : mesoderm

Correct Answer : A

81 : Dr. Swift tells Taylor that her developing embryo is showing distortions in the development of its circulatory system. As a knowledgeable student of human development, Taylor should realize that the problem is within cells of the ____ layer.
A : placenta
B : mesoderm
C : ectoderm
D : endoderm

Correct Answer : B

82 : Ectoderm is to endoderm as
A : heterozygous is to homozygous.
B : fraternal is to identical.
C : outer is to inner.
D : bone is to muscle.

Correct Answer : C

83 : While observing a special monitor, a physician tells an expectant mother, As you can see, the legs and arms have just begun to emerge. From this description, you should realize that the two are looking at a(n)
A : zygote.
B : fetus.
C : embryo.
D : germ disc.

Correct Answer : C

84 : The sac in which the embryo resides is called the
A : ectoderm.
B : amnion.
C : germ disc.
D : placenta.

Correct Answer : B

85 : One key purpose of the amniotic fluid is to
A : provide the embryo with nutrients.
B : stimulate development of neurotransmitters.
C : screen the flow of blood between mother and embryo.

D : maintain a constant temperature for the embryo.

Correct Answer : D

86 : The ____ houses the blood vessels that join the embryo and its mother.
A : umbilical cord
B : amnion
C : germ disc
D : mesoderm

Correct Answer : A

87 : The placenta
A : directly connects the bloodstream of the embryo to the bloodstream of the mother.
B : contains amniotic fluid.
C : helps the fetus to maintain a constant temperature.
D : allows for an exchange of nutrients and waste.

Correct Answer : D

88 : The fact that the embryonic head develops before the body illustrates the ____ principle.
A : cephalocaudal
B : incomplete dominance
C : proximodistal
D : niche-picking

Correct Answer : A

89 : A doctor could best illustrate the proximodistal principle by discussing the fact that
A : male fetuses develop faster than female fetuses.
B : identical twins tend to be smaller than fraternal twins.
C : the outside portion of the amniotic sac is thicker than the inside portion.
D : a baby can control its shoulder before it can control its fingers.

Correct Answer : D

90 : During prenatal development, the arm develops before the fingers. This most illustrates the ____ principle.
A : Premack
B : coefficient
C : cephalocaudal
D : proximodistal

Correct Answer : D

91 : Which organism can truthfully state, It is during my time that all body parts and organs are first put into place?
A : The neonate
B : The zygote
C : The fetus
D : The embryo

Correct Answer : D

92 : Marshas doctor informs her that her child is just entering the longest period of prenatal development. About how long has Marsha been carrying her unborn child?
A : 1 day
B : 3 weeks
C : 9 weeks
D : 28 weeks

Correct Answer : C

93 : Which event is characteristic of the period of the fetus?
A : The first beat of the heart
B : The first neural activity in the neocortex
C : The significant growth in the cerebral cortex
D : The attachment of the umbilical cord to the placenta

Correct Answer : C

94 : The thick, greasy substance that covers the fetus around five to six months after conception is called
A : placenta.
B : vernix.
C : amnion.
D : endoderm.

Correct Answer : B

95 : Currently, the earliest age of viability occurs around ____ weeks after conception.
A : 14
B : 22
C : 30
D : 38

Correct Answer : B

96 : Just after the birth of her son Nelly, mom Kelly is informed that little Nellys neural tube did not properly close during his prenatal development. This would mean that Nelly will be diagnosed with
A : spina bifida.
B : muscular dystrophy.
C : cerebral palsy.
D : sickle-cell anemia.

Correct Answer : A

97 : A knowledgeable nutritionist would tell a pregnant mother that, in order to reduce the risk of having a baby born with spina bifida, mom needs to make sure that she is ingesting an adequate amount of
A : vitamin A.
B : iron.
C : vitamin E.
D : folic acid.

Correct Answer : D

98 : Maternal stress is most likely to negatively impact a developing embryo/fetus when that stress is
A : intermittent and extreme.
B : intermittent and moderate.
C : prolonged and extreme.
D : chronic and moderate.

Correct Answer : C

99 : The main reason for why teenage mothers tend to give birth to less healthy infants than mothers in their 20s is that they
A : tend not to receive good prenatal care.
B : take too many vitamins.
C : have more genetically defective eggs.
D : are more likely to smoke while pregnant.

Correct Answer : A

100 : Halley is 40 years old and she and her daughter Berry, 20, are both currently pregnant. Which statement with regard to these two mothers is most accurate?
A : Berry has a greater risk of giving birth to a baby with sickle-cell anemia.
B : Halley is twice as fertile as Berry.
C : Berrys odds of having a baby with Down syndrome are three times higher than Halleys.
D : Halley has a greater risk of having a miscarriage.

Correct Answer : D

101 : A teratogen is any agent that
A : results in abnormal prenatal development.
B : enhances the flow of oxygen across the placental barrier.
C : decreases the chances of having a child with a genetic disorder.
D : inhibits the impact of drugs on the developing embryo.

Correct Answer : A

102 : Whose mother most likely took thalidomide while pregnant?
A : Dean, who has a heart defect
B : Martin, who has deformed arms and legs
C : Jerry, who is deaf
D : Lewis, who is severely intellectually disordered

Correct Answer : B

103 : How many of the following are potential teratogens: aspirin, nicotine, cocaine, and caffeine?
A : one
B : two
C : three
D : four

Correct Answer : D

104 : What effect is not associated with fetal alcohol spectrum disorder (FASD)?
A : Slow growth
B : Slowed intellectual growth
C : Blindness
D : Misshapen face

Correct Answer : C

105 : Bryants teacher notices that Bryant has unusual facial features (e.g., short nose and wide-set eyes) and shows signs of mental retardation. Due to her training in developmental psychology, Bryants teacher realizes that Bryants mom likely ____ while she was pregnant.
A : consumed alcohol
B : injected heroin
C : smoked marijuana
D : consumed an excessive amount of caffeine

Correct Answer : A

106 : A woman who consumes alcohol ____ has the greatest risk of giving birth to a baby with fetal alcohol spectrum disorder (FASD).
A : lightly and sporadically
B : moderately and sporadically
C : lightly and consistently
D : moderately and consistently

Correct Answer : D

107 : Both AIDS and genital herpes
A : can be passed along to an infant as it passes through the birth canal.
B : typically result in blindness.
C : cannot be transmitted to a fetus through the placenta.
D : can be eliminated by maternal inoculation.

Correct Answer : A

108 : Which statement concerning teratogens is false?
A : They impact different genotypes differently.
B : They impact specific aspects of development.
C : Their effects may not emerge until later in life.
D : Their effects are the same regardless of the time when the individual is exposed.

Correct Answer : D

109 : The key lesson learned by the fact that thalidomide showed no impact when tested on prenatal rabbits but led to birth defects in prenatal humans is that
A : teratogens impact different genotypes differently.
B : teratogens impact specific aspects of development.
C : teratogen effects may not emerge until later in life.
D : teratogen effects are the same regardless of the time when the individual is exposed.

Correct Answer : A

110 : What was the most critical lesson about teratogens learned from studies on the use of the drug diethylstilbestrol (DES) by pregnant women?
A : Sometimes what appear to be teratogens actually are harmless drugs.
B : Infants in the late fetal period appear to be the most at risk for impact from drug-related teratogens.
C : Sometimes the effects of teratogens are not apparent until long after exposure.
D : Females appear to be at much greater risk from teratogens.

Correct Answer : C

111 : Exposure to a teratogen during the ____ period is most likely to result in a spontaneous abortion.
A : implantation
B : zygotic
C : embryonic
D : fetal

Correct Answer : B

112 : As there is a history of hereditary disease in the families of Tim and Faith, they have arranged a meeting with a specialist at which a family tree concerning the odds of them having a child with a birth defect will be constructed. This event would most accurately be described as
A : amniocentesis.
B : chorionic villus sampling.
C : teratogenic.
D : genetic counseling.

Correct Answer : D

113 : Whitney is very concerned about the prebirth position of the child she is carrying. Which technique would be the best for determining whether Whitneys concerns are warranted?
A : Genetic counseling
B : Ultrasound
C : Chorionic villus sampling
D : Amniocentesis

Correct Answer : B

114 : Which prenatal assessment technique results in a picture of the fetus?
A : Genetic screening
B : Ultrasound
C : Chorionic villus sampling
D : Amniocentesis

Correct Answer : B

115 : The sample taken during an amniocentesis comes from
A : the lining of the uterus.
B : inside the body of the fetus.
C : the fluid surrounding the fetus.
D : the umbilical cord.

Correct Answer : C

116 : Regan is a medical student who is learning a procedure in which fetal cells are sampled from the mothers bloodstream. What technique is he most likely learning?
A : Amniocentesis
B : Noninvasive prenatal testing (NIPT)
C : Chorionic villus sampling
D : Ultrasound

Correct Answer : B

117 : Mia and her doctor need to know as quickly as possible (hopefully within 24 hours) whether the child she has been carrying for only nine weeks possesses any genetic abnormalities. Which technique is Mias doctor most likely to employ?
A : Chorionic villus sampling
B : Ultrasound
C : Amniocentesis
D : Genetic counseling

Correct Answer : A

118 : Troy is very interested in the field of fetal therapy. Given this, he would most likely be fascinated by a book titled
A : Afterbirth Care and You.
B : The Benefits of Healthy Eating Before Pregnancy.
C : Fixing Birth Defects Before Birth.
D : The Importance of Childhood Inoculations.

Correct Answer : C

119 : Physicians are currently able to correct spina bifida at around the seventh or eighth month of pregnancy using
A : genetic engineering.
B : fetal surgery.
C : chorionic villus sampling.
D : ultrasound.

Correct Answer : B

120 : The experimental CRISPR process, in which the genome is edited by replacing alleles, is an example of work in which field?
A : Amnio engineering.
B : Genetic engineering
C : Audio engineering
D : Niche engineering

Correct Answer : B

121 : Because it involves prolonged physical effort, the process of childbirth is often referred to as involving stages of
A : labor.
B : parturition.
C : travail.
D : pursuit.

Correct Answer : A

122 : By the time Lexi arrived at the hospital to deliver her child, the child had entered the vaginal opening. This means that Debbie was in the ____ stage of labor.
A : first
B : second
C : third
D : fourth

Correct Answer : B

123 : When her physician mentions the term crowning, Angelina, who is giving birth, should realize the term crowning means that her
A : cervix has just fully dilated.
B : uterine contractions are about to start.
C : babys head has just reached the vaginal opening.
D : placenta is about to be delivered.

Correct Answer : C

124 : What is expelled during afterbirth?
A : Fetus
B : Placenta
C : Cervix
D : Ova

Correct Answer : B

125 : Lucy is afraid of the pain involved in delivering her baby. Are prepared childbirth classes likely to help her?
A : Yes, because women who take these courses report experiencing less pain than women who do not.
B : Yes, because women who take these courses qualify for painkilling medications they would not usually receive.
C : No, because childbirth courses only make people more knowledgeable about the birthing process and can have no effect on pain.
D : No, because individuals who know most about the birthing process experience the most pain.

Correct Answer : A

126 : Which is not a typical childbirth class technique for reducing the pain associated with delivery?
A : Teach deep breathing to reduce muscle tension.
B : Teach visual imagery focusing on pleasant scenes or experiences.
C : Teach a coach to attend to mother and help her cope with pain.
D : Teach that medications are the first rank of pain intervention in the delivery room.

Correct Answer : D

127 : For healthy pregnant women, when a trained healthcare professional is present to assist,
A : home delivery can feel more relaxing than hospital delivery.

B : hospital delivery is much safer than home delivery.
C : home delivery is safer than hospital delivery.
D : the home delivery versus hospital delivery risk factors are unknown.

Correct Answer : A

128 : Postpartum depression
A : occurs in about 50 percent of new mothers.
B : is more common following planned pregnancies than unplanned pregnancies.
C : is a purely psychological phenomenon (i.e., has no physiological basis).
D : may be reduced via breast-feeding.

Correct Answer : D

129 : After learning that his newborn sons birth involved hypoxia, Sven (a knowledgeable nurse) would most likely ask,
A : How long until my wifes scar heals?
B : How long was the baby not receiving adequate oxygen during the birthing process?
C : Did the cervix ever dilate?
D : Is such a premature birth normal?

Correct Answer : B

130 : A Cesarean section is best thought of as
A : vaginal childbirth.
B : a technique for determining possible birth defects in an embryo.
C : a common form of teratogen.
D : the surgical removal of a fetus.

Correct Answer : D

131 : Mona has decided to have a Cesarean section rather than a vaginal delivery. While this decision will reduce some risks, it will increase the risk of
A : hypoxia.
B : spina bifida.
C : maternal infection.
D : low birth weight.

Correct Answer : C

132 : By definition, premature infants are born prior to ____ weeks after conception.
A : 42
B : 40
C : 38
D : 36

Correct Answer : D

133 : The cutoff between normal and low birth weight is about ____ pounds.
A : 7.7
B : 5.5
C : 3.3
D : 2.2

Correct Answer : B

134 : Because her birth weight was 1200 grams (about 3 pounds), Kia would be correctly classified as having a(n) ____ birth weight.
A : normal
B : low
C : very low
D : extremely low

Correct Answer : C

135 : Born 39 weeks after conception, Sasha weighs in at around 2 pounds. Given this information, Sasha is best defined as
A : full-term and normal birth weight.
B : preterm and normal birth weight.
C : preterm and very low birth weight.
D : full-term and extremely low birth weight.

Correct Answer : D

136 : Jamal was born 34 weeks after he was conceived and weighed 6 pounds. Jamal is best described as
A : full-term and normal birth weight.
B : preterm and normal birth weight.
C : full-term and low birth weight.
D : preterm and low birth weight.

Correct Answer : B

137 : Longitudinal research on Hawaiian children indicated that problems associated with low birth weight
A : were typically lifelong.
B : had no impact on social or cognitive abilities.
C : were only found in males.
D : could be overcome if the child was raised in a stable family environment.

Correct Answer : D

138 : Infant mortality rate is defined as the percentage of infants who die
A : before birth.
B : during birth.
C : before their first birthday.
D : before their second birthday.

Correct Answer : C

139 : Which parent should most realistically fear her child dying before reaching their first birthday?
A : Alfie, who is in Afghanistan
B : Charleene, who is in the Czech Republic
C : Fran, who is in Finland
D : Jen, who is in Japan

Correct Answer : A

140 : Low birth weight can most effectively be prevented through
A : regular prenatal care.
B : avoiding teratogens.
C : maternal inoculations.
D : chorionic villus sampling.

Correct Answer : A

FILL IN THE BLANK

141 : The first 22 pairs of chromosomes are called _____.

Correct Answer : autosomes

142 : DNA is short for _____ acid.

Correct Answer : deoxyribonucleic

143 : A(n) _____ allele is ignored when it is combined with a dominant allele.

Correct Answer : recessive

144 : An individual with phenylketonuria is born without a key _____ enzyme required for normal development.

Correct Answer : liver

ESSAY

145 : A new genetic disorder called HARID disease is found to involve heterozygous alleles, is recessive, and is characterized by incomplete dominance. Discuss the implications of this description concerning the inheritance of this disorder.

Correct Answer : Heterozygous alleles occur when the alleles in a pair of chromosomes differ from each other. In this case, the individual will have one non-HARID disease allele and one allele for HARID disease. A recessive allele's instructions are ignored in the presence of a dominant allele. In incomplete dominance, one allele does not dominate another completely. In incomplete dominance, the phenotype that results often falls between the phenotype associated with either allele. Individuals with two recessive alleles (one from each parent) are likely to inherit this disease. Individuals with at least one dominant allele are unlikely to develop the disease.

146 : Discuss the relationship between genotype and phenotype. Provide an example of each to support your analysis.

Correct Answer : The complete set of genes makes up a person's heredity and is known as the person's genotype. Example: Hair or eye color. Genetic instructions, in conjunction with

environmental influences, produce a phenotype, an individual's physical, behavioral, and psychological features. Example: A child has tall parents but because of malnutrition the child does not grow as tall as they might have become with good nutrition.

147 : Down syndrome and Turners syndrome are two genetic disorders that involve abnormal chromosomes. Identify the exact chromosomal aberration and the impact of the aberration on development for each syndrome.

Correct Answer : Down syndrome is caused by an extra 21st chromosome that is usually provided by the egg. People with Down syndrome have almond-shaped eyes and a fold over the eyelid. Their head, neck, and nose are usually smaller than normal. They also have cognitive and social impairments. Turner's syndrome is caused by having a single X sex chromosome. People with Turner's syndromes are short, have limited development of secondary sex characteristics, and problems perceiving spatial relations.

148 : Jen is 20 years old, pregnant, and eats well, but she is under a lot of prolonged, extreme stress. Her friend Angelina, who is also pregnant, is 42 years old and has a very poor diet, but is under little stress. What prediction could you make concerning the postbirth health of each of these womens babies?

Correct Answer : Prolonged, extreme stress during pregnancy can lead to attention and behavioral problems in children. Jen's prenatal stress can also affect her child's physical, cognitive, and language development. However, Angelina's age puts her child at risk of low birth weight and Down syndrome. Her poor diet during prenatal development can lead to problems in attention, memory, and intelligence. Also, if Angelina has not consumed adequate amounts of folic acid, her baby is at risk for spina bifida.

149 : Identify one disease, one drug, and an environmental hazard that is known to negatively impact prenatal development. Be sure to describe the specific impact of each teratogen.

Correct Answer : When a woman contracts chicken pox during pregnancy, it can cause spontaneous abortion, developmental delays, or intellectual disabilities. Thalidomide is a drug that causes abnormal prenatal development. Exposure leads to deformed arms, legs, hands, or fingers. Prenatal exposure to mercury can cause retarded growth, intellectual disabilities, or cerebral palsy.

150 : Alisha is in for her weekly prenatal check-up. Her OB/GYN physician is going over some potential environmental threats to her baby. Describe any three principles the doctor might discuss with Alisha that govern how teratogens could affect her babys development.

Correct Answer : (1) The impact of a teratogen depends on the genotype of the organism. Heredity makes some individuals more susceptible to a teratogen. (2) The impact of teratogens changes over the course of prenatal development. The timing of exposure to a teratogen during the zygote, embryo, or fetus stage typically has different effects. (3) Each teratogen affects a specific aspect of prenatal development. Teratogens produce selective damage. (4) The impact of teratogens depends on the dose. More exposure creates more risk of damage. (5) Damage from teratogens is not always evident at birth but may appear later in life. The impact of a teratogen may be delayed.

151 : Beth is 12 weeks pregnant and concerned that her fetus may have a genetic disorder. Describe two techniques that a physician could use to determine whether Beths concerns are warranted. Also, discuss how fetal therapy could be used to deal with a disorder if one is identified.

Correct Answer : Amniocentesis is a prenatal diagnostic technique that uses a syringe to withdraw a sample of amniotic fluid throughout the mother's abdomen. Chorionic villus sampling is a prenatal diagnostic technique that involves taking a sample of tissue from the chorion. Noninvasive prenatal testing (NIPT) involves the analysis of fetal genetic material obtained froma routine sample of blood from a pregnant woman. Fetal therapy can be used to treat prenatal problems before birth. Disorders can be treated by administering drugs or hormones to the fetus, fetal surgery, or genetic engineering.

152 : Describe the three basic stages of childbirth in terms of time, purpose, and symptoms.

Correct Answer : During stage 1, which may last from 12 to 24 hours for a first birth, the uterus starts to contract. As the contractions become stronger, the cervix is enlarged to approximately 10 centimeters. Stage 2 lasts about an hour and consists of the baby passing through the cervix and into the vagina. The mother helps push the baby along by contracting muscles in her abdomen. Crowning occurs when the top of the baby's head appears. Stage 3 lasts only minutes and consists of the mother expelling the placenta.

153 : Your friend Min Yan is currently pregnant and attempting to learn about common birth complications and/or whether or not homebirth is a good option for her. She is 25 years old, in good health, and expecting her first child. Help her by first describing two birth complications and then discuss why a home delivery may be a viable option in her case.

Correct Answer : Cephalopelvic disproportion: the infant's head is larger than the pelvis, making it impossible for the baby to pass through the birth canal. Irregular position: in shoulder presentation, the baby is lying crosswise in the uterus and the shoulder appears first; in breech presentation, the buttocks appear first. Preeclampsia: a pregnant woman has high blood pressure, protein in her urine, and swelling in her extremities (due to fluid retention). Prolapsed umbilical cord: the umbilical cord precedes the baby through the birth canal and is squeezed shut, cutting off oxygen to the baby. Hypoxia is a birth complication in which umbilical blood flow is disrupted and the infant does not receive adequate oxygen. Women can consider home delivery when they are healthy, their pregnancy has been problem-free, a trained health care professional is present to assist, and comprehensive medical care is readily available should the need arise.

154 : Length of gestation (i.e., number of weeks in utero) and weight at birth are both related to birth risk. Demonstrate your awareness of key related concepts by discussing the concepts of prematurity, low birth weight, and extremely low birth weight.

Correct Answer : Prematurity describes babies born before the 36th week after conception. Low birth weight describes newborns who weigh less than 5.5 pounds (1500 grams). Extremely low birth weight describes newborns who weigh less than 2.2 pounds (1000 grams).

155 : Describe why in vitro fertilization and eugenics represent controversial issues in human development.

Correct Answer : In vitro fertilization involves conception outside of the body (e.g., in a Petri dish). Ethical concerns include a parent's right to select specific traits and the high costs, which tend to not be covered by insurance. Eugenics is an effort to improve humans by allowing only certain individuals to mate and pass along genes.