

Biology

Section Id :	46419940
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	50
Number of Questions to be attempted :	40
Section Marks :	200
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	464199111
Question Shuffling Allowed :	Yes

Question Number : 201 Question Id : 4641991705 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Production of seeds without fertilization is known as :

- (1) Parthenogenesis
- (2) Apomixis
- (3) Polyembryony
- (4) Syngamy

Question Number : 202 Question Id : 4641991706 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Arrange the given stages of Megasporogenesis in chronological order.

- (A) Megaspore tetrad
- (B) Megaspore dyad
- (C) Megaspore mother cell
- (D) Female gametophyte

Choose the **correct** answer from the options given below :

- (1) (D), (A), (B), (C)
- (2) (A), (D), (C), (B)
- (3) (B), (A), (D), (C)
- (4) (C), (B), (A), (D)

Question Number : 203 Question Id : 4641991707 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Match List-I with List-II :

List-I	List-II
Kind of Pollinations	Features
(A) Autogamy	(I) Pollination involving flower of two different plants
(B) Geitonogamy	(II) Pollination involving water
(C) Xenogamy	(III) Pollination involving two flowers of same plant
(D) Hydrophyily	(IV) Pollination involving same flower

Choose the **correct** answer from the options given below :

- (1) (A)-(II), (B)-(I), (C)-(III), (D)-(IV)
- (2) (A)-(III), (B)-(II), (C)-(I), (D)-(IV)
- (3) (A)-(IV), (B)-(III), (C)-(I), (D)-(II)
- (4) (A)-(I), (B)-(III), (C)-(II), (D)-(IV)

Question Number : 204 Question Id : 4641991708 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Hormone releasing Intra Uterine Device is :

- (1) Lippes loop
- (2) LNG - 20
- (3) Multiload 375
- (4) Cu 7

Question Number : 205 Question Id : 4641991709 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Which of the following is **incorrect** regarding oral contraceptives ?

- (1) These are small doses of progestogens or progestogen - estrogen combinations
- (2) They inhibit ovulation and implantation
- (3) They suppress the sperm motility and its fertilizing capacity
- (4) They may contain non-steroidal preparation with few side effects and high contraceptive value

Question Number : 206 Question Id : 4641991710 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Choose the statements which are **correct** with respect to the Medical Termination of Pregnancy (MTP) Act, 2017 :

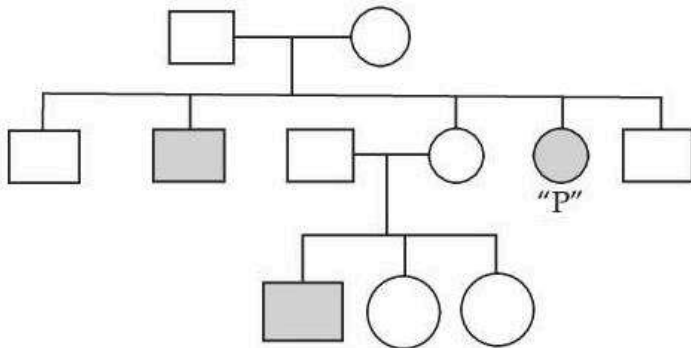
- (A) Approximately 20% of the conceived pregnancies undergone MTP globally in a year
- (B) MTP is legalized in India upto four months unconditionally
- (C) Amniocentesis is mandatory before performing MTP
- (D) MTPs are considered relatively safe upto 12 weeks of pregnancy

Choose the **correct** answer from the options given below :

- (1) (B) and (C) only
- (2) (B) and (D) only
- (3) (A) and (B) only
- (4) (A) and (D) only

Question Number : 207 Question Id : 4641991711 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

In the given pedigree chart 'P' is a female suffering from a disease, which is denoted by 'A' dominant allele and 'a' recessive allele ? Find the genotype of 'P'.



- (1) AA
- (2) $X^A X$
- (3) $X^A X^A$
- (4) aa

Question Number : 208 Question Id : 4641991712 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Gene HBB for β -thalassemia is present on which chromosome ?

- (1) 5
- (2) 22
- (3) 11
- (4) 9

Question Number : 209 Question Id : 4641991713 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Of the following statements which is/are correct ?

- (A) During incomplete dominance, modified allele is the dominant allele
- (B) In polygenic inheritance, the effect of each allele is additive
- (C) A gene is called pleiotropic when it exhibit multiple phenotypic expression
- (D) Mutation means alteration of DNA sequence which ensures change only in the phenotype of an organism

Choose the correct answer from the options given below :

- (1) (A), (B) and (C) only
- (2) (B) and (C) only
- (3) (D) only
- (4) (C) and (D) only

Question Number : 210 Question Id : 4641991714 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Match List-I with List-II :

List-I	List-II
(A) Thalassemia	(I) 47, XXY
(B) Klinefelter's syndrome	(II) Sex linked recessive disorder
(C) Turners' syndrome	(III) 45, XO
(D) Colour blindness	(IV) Autosomal recessive disease

Choose the correct answer from the options given below :

- (1) (A)-(IV), (B)-(II), (C)-(I), (D)-(III)
- (2) (A)-(II), (B)-(I), (C)-(III), (D)-(IV)
- (3) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)
- (4) (A)-(IV), (B)-(I), (C)-(III), (D)-(II)

Question Number : 211 Question Id : 4641991715 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

RNA is a labile molecule due to the presence of :

- (1) 3' -OH group
- (2) 5' -OH group
- (3) 4' -OH group
- (4) 2' -OH group

Question Number : 212 Question Id : 4641991716 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Enzyme helpful in polymerizing RNA with defined sequences in a template independent manner is :

- (1) Mononucleotide phosphorylase
- (2) Polynucleotide phosphorylase
- (3) RNA polymerase - I
- (4) DNA dependent RNA polymerase

Question Number : 213 Question Id : 4641991717 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Which of the following is not a component of DNA ?

- (1) Thiamine
- (2) Adenine
- (3) Guanine
- (4) Cytosine

Question Number : 214 Question Id : 4641991718 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Match List-I with List-II :

List-I Scientist	List-II Contribution
(A) A. Jeffreys	(I) Nuclein
(B) Miescher	(II) Amino acid formation
(C) J. Monod	(III) DNA fingerprinting
(D) S.L. Miller	(IV) Transcriptionally regulated system

Choose the **correct** answer from the options given below :

- (1) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)
- (2) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)
- (3) (A)-(III), (B)-(I), (C)-(II), (D)-(IV)
- (4) (A)-(I), (B)-(III), (C)-(II), (D)-(IV)

Question Number : 215 Question Id : 4641991719 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Homologous Organs are :

- (1) Similar in structure and same in functions
- (2) Similar in structure and different in functions
- (3) Different in structure and same in function
- (4) Similar in structure and have same or different functions

Question Number : 216 Question Id : 4641991720 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Arrange the following on the basis of their origin earliest to latest :

- (A) *Homo habilis*
- (B) Neanderthal Man
- (C) *Ramapithecus*
- (D) *Homo sapiens*
- (E) *Homo erectus*

Choose the **correct** answer from the options given below :

- (1) (D), (B), (C), (A), (E)
- (2) (C), (A), (E), (B), (D)
- (3) (A), (C), (B), (E), (D)
- (4) (B), (A), (C), (E), (D)

Question Number : 217 Question Id : 4641991721 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Arrange the following steps of decomposition in **correct** order of their sequence :

- (A) Humification
- (B) Fecal Matter
- (C) Leaching
- (D) Mineralisation

Choose the **correct** answer from the options given below :

- (1) (A), (C), (B), (D)
- (2) (D), (B), (A), (C)
- (3) (B), (C), (A), (D)
- (4) (A), (D), (C), (B)

Question Number : 218 Question Id : 4641991722 Question Type : MCQ Option Shuffling : No Correct Marks : 5 Wrong Marks : 1

Match List-I with List-II :

List-I	List-II
Evolutionary Processes	Example
(A) Divergent evolution	(I) Wings of butterfly and birds
(B) Convergent evolution	(II) Lemur and spotted cuscus
(C) Anthropogenic evolution	(III) Hearts of vertebrates
(D) Adaptive Radiation	(IV) Antibiotic resistant microbes

Choose the **correct** answer from the options given below :

- (1) (A)-(IV), (B)-(II), (C)-(I), (D)-(III)
- (2) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)
- (3) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
- (4) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)

Question Number : 219 Question Id : 4641991723 Question Type : MCQ Option Shuffling : No Correct Marks : 5 Wrong Marks : 1

Toxic substance released with rupturing of RBC during malaria fever is :

- (1) Haematoxyline
- (2) Haematin
- (3) Haemozoin
- (4) Haemin

Question Number : 220 Question Id : 4641991724 Question Type : MCQ Option Shuffling : No Correct Marks : 5 Wrong Marks : 1

The yellowish fluid secreted by mother during initial days of lactation has abundant :

- (1) IgA
- (2) IgM
- (3) IgE
- (4) IgG

Question Number : 221 Question Id : 4641991725 Question Type : MCQ Option Shuffling : No Correct Marks : 5 Wrong Marks : 1

Identify the **incorrect** statements.

- (A) Gametocytes of *Plasmodium* develop in the RBCs.
- (B) Ascariasis pathogens are transmitted to a healthy person through the bite by the female mosquito vectors.
- (C) *Entamoeba histolitica* is a helminth parasite in the small intestine of human which causes amoebiasis.
- (D) Malarial parasite reproduces asexually in the gut of mosquito.
- (E) Filarial worms reside in the lymphatic vessels of the lower limbs.

Choose the **correct** answer from the options given below :

- (1) (A), (B) and (E) only
- (2) (B), (C) and (D) only
- (3) (A) and (B) only
- (4) (C) and (D) only

Question Number : 222 Question Id : 4641991726 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Match List-I with List-II :

List-I Diseases	List-II Pathogen
(A) Pneumonia	(I) <i>Wuchereria bancrofti</i>
(B) Typhoid	(II) <i>Microsporium</i>
(C) Ringworm	(III) <i>Salmonella</i>
(D) Elephantiasis	(IV) <i>Haemophilus influenzae</i>

Choose the **correct** answer from the options given below :

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)
- (3) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
- (4) (A)-(III), (B)-(II), (C)-(I), (D)-(IV)

Question Number : 223 Question Id : 4641991727 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Which vitamin is increased during the conversion of fresh milk to curd ?

- (1) B₂
- (2) B₅
- (3) B₁₂
- (4) B₁

Question Number : 224 Question Id : 4641991728 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Match List-I with List-II :

List-I		List-II
Function		Organism
(A) Nitrogen fixation (bacterium)	(I)	<i>Saccharomyces</i>
(B) Phosphorous absorption	(II)	<i>Azospirillum</i>
(C) Nitrogen fixation (cyanobacterium)	(III)	<i>Glomus</i>
(D) Ethanol Production	(IV)	<i>Oscillatoria</i>

Choose the **correct** answer from the options given below :

- (1) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
- (2) (A)-(II), (B)-(IV), (C)-(I), (D)-(III)
- (3) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
- (4) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)

Question Number : 225 Question Id : 4641991729 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Match List-I with List-II :

List-I		List-II
Microbes		Acid Produced
(A) <i>Aspergillus</i>	(I)	Lactic acid
(B) <i>Acetobacter</i>	(II)	Butyric acid
(C) <i>Clostridium</i>	(III)	Acetic acid
(D) <i>Lactobacillus</i>	(IV)	Citric acid

Choose the **correct** answer from the options given below :

- (1) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)
- (2) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (3) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
- (4) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)

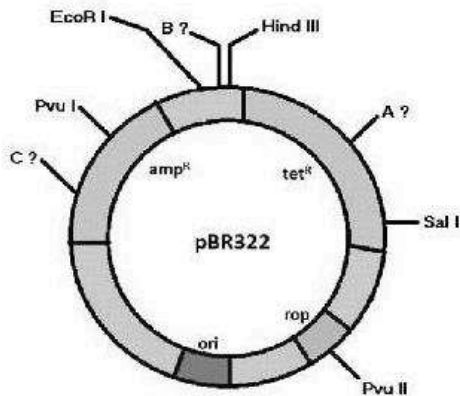
Question Number : 226 Question Id : 4641991730 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Which of the following product is not developed by the use of biotechnology ?

- (1) Bt cotton
- (2) DNA vaccine
- (3) Human protein enriched milk
- (4) Basmati Rice

Question Number : 227 Question Id : 4641991731 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Identify the missing restriction sites (A, B and C) in the given *E. coli* cloning vector pBR322.



- (1) A - BamH I; B - Cla I; C - Pst I
- (2) A - Pst I; B - Cla I; C - Hind II
- (3) A - BamH I; B - Hind II; C - Cla I
- (4) A - Cla I; B - Pst I; C - BamH I

Question Number : 228 Question Id : 4641991732 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Arrange the following steps in recombinant DNA technology on the basis of their sequence of occurrence :

- (A) Isolation of desired DNA fragments
- (B) Culturing the host cells
- (C) Extraction of desired product
- (D) Ligation of DNA fragment into vector
- (E) Transferring of recombinant DNA to host

Choose the **correct** answer from the options given below :

- (1) (A), (E), (C), (B), (D)
- (2) (A), (D), (E), (B), (C)
- (3) (B), (C), (A), (D), (E)
- (4) (B), (A), (D), (C), (E)

Question Number : 229 Question Id : 4641991733 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Which of the following is **not** a cause of biodiversity loss ?

- (1) Fragmentation
- (2) Over-exploitation
- (3) Co-evolution
- (4) Alien species invasion

Question Number : 230 Question Id : 4641991734 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

For which of the following human disease, transgenic model was **not** developed ?

- (1) AIDS
- (2) Cancer
- (3) Cystic Fibrosis
- (4) Rheumatoid arthritis

Question Number : 231 Question Id : 4641991735 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Transposons are :

- (1) House keeping genes
- (2) Jumping genes
- (3) Transporting gene
- (4) Stationary gene

Question Number : 232 Question Id : 4641991736 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Identify the **incorrect** statements.

- (A) *Bacillus thuringiensis* is a transgenic organism.
- (B) Bt toxin enter the testes or the ovaries of the insect pest, sterilize it and thus prevent it's multiplication.
- (C) Proteins encoded by *cryIAC* and *cryIIAb* control cotton bollworms.
- (D) Bt protein exists as active toxin in the *Bacillus*.
- (E) Alkaline pH of the insect gut solubilizes the toxin protein crystals.

Choose the **correct** answer from the options given below :

- (1) (A), (B) and (D) only
- (2) (B) and (D) only
- (3) (C) and (D) only
- (4) (C), (D) and (E) only

Question Number : 233 Question Id : 4641991737 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Match List-I with List-II :

List-I	List-II
Genes/Products	Used in/for
(A) C - Peptide	(I) Corn borer
(B) α -1-antitrypsin	(II) Rosie
(C) <i>cryIIAb</i>	(III) Insulin
(D) α -lactalbumin	(IV) Emphysema

Choose the **correct** answer from the options given below :

- (1) (A)-(IV), (B)-(III), (C)-(I), (D)-(II)
- (2) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
- (3) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
- (4) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)

**Question Number : 234 Question Id : 4641991738 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1**

In which of the following ecosystems, detritus food chain (DFC) is the major conduit for energy flow ?

- (1) Pond Ecosystem
- (2) River Ecosystem
- (3) Forest Ecosystem
- (4) Marine Ecosystem

**Question Number : 235 Question Id : 4641991739 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1**

Which one of the following statements is **wrong** regarding ecological pyramids ?

- (1) They do not include saprophytes (decomposers)
- (2) Insect feeding on a big tree is an example of inverted pyramid of numbers
- (3) The pyramid of biomass in a sea is inverted
- (4) They considered the same species belonging to two or more trophic levels

**Question Number : 236 Question Id : 4641991740 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1**

The total energy fixed by a green plant is called :

- (1) Net Production
- (2) Primary Production
- (3) Secondary Production
- (4) Gross Production

**Question Number : 237 Question Id : 4641991741 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1**

Tropical regions account for greater biological diversity because of the following reasons, except :

- (1) Higher productivity due to more availability of solar energy
- (2) Lower predation due to diversity of food availability
- (3) Tropics are less seasonal and relatively more constant and predictable
- (4) These latitudes are relatively undisturbed for many years leads to long evolutionary time for diversification

**Question Number : 238 Question Id : 4641991742 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1**

Deserts, rain forests, mangroves, coral reefs, wetlands, estuaries and alpine meadows in India represent :

- (1) Ecological diversity
- (2) Genetic diversity
- (3) Species diversity
- (4) Species diversity and ecological diversity

**Question Number : 239 Question Id : 4641991743 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1**

The increase in rate of species loss in the world is due to :

- (A) Less use of natural resources
- (B) Introduction of alien species
- (C) Species confined to a particular area
- (D) Removal of one species from co-existed species
- (E) Destruction of large landscape into small area

Choose the **correct** answer from the options given below :

- (1) (A), (B) and (C) only
- (2) (B), (D) and (E) only
- (3) (B), (C) and (D) only
- (4) (A), (C) and (D) only

Question Number : 240 Question Id : 4641991744 Question Type : MCQ Option Shuffling : No Correct Marks : 5 Wrong Marks : 1

Choose the following statements which are **correct** with respect to continuous culture systems :

- (A) In simple stirred tank bioreactor, the stirring happens through sparging of air bubbles
- (B) Bioreactor has an agitator system, oxygen delivery system and foam control system
- (C) Sampling ports provides vents to withdraw small volumes of culture periodically
- (D) Culturing in bio reactors is classified as downstream processing

Choose the **correct** answer from the options given below :

- (1) (A), (B) and (C) only
- (2) (A), (C) and (D) only
- (3) (B) and (C) only
- (4) (A) and (D) only

Sub-Section Number : 2
Sub-Section Id : 464199112
Question Shuffling Allowed : No

Question Number : 241 Question Id : 4641991745 Question Type : MCQ Option Shuffling : No Correct Marks : 5 Wrong Marks : 1

Read the paragraph and answer the Question given below :

Humans are sexually reproducing and viviparous. The male reproductive system is composed of a pair of testes the male sex accessory ducts and the accessory glands and external genitalia. The female reproductive system consists of a pair of ovaries a pair of oviducts, a uterus, a vagina, external genitalia and pair of mammary glands. The reproductive cycle of female primates is called menstrual cycle. Menstrual cycle starts only after attaining sexual maturation (puberty). Coitus followed by fertilization leads to formation of zygote. After 9 months of pregnancy, the fully developed foetus is ready for delivery.

What is the first sign of growing foetus ?

- (1) Development of limbs and digits
- (2) Movement of foetus
- (3) Formation of heart
- (4) Development of head

Question Number : 242 Question Id : 4641991746 Question Type : MCQ Option Shuffling : No Correct Marks : 5 Wrong Marks : 1

Read the paragraph and answer the Question given below :

Humans are sexually reproducing and viviparous. The male reproductive system is composed of a pair of testes the male sex accessory ducts and the accessory glands and external genitalia. The female reproductive system consists of a pair of ovaries a pair of oviducts, a uterus, a vagina, external genitalia and pair of mammary glands. The reproductive cycle of female primates is called menstrual cycle. Menstrual cycle starts only after attaining sexual maturation (puberty). Coitus followed by fertilization leads to formation of zygote. After 9 months of pregnancy, the fully developed foetus is ready for delivery.

How many chromosomes are present in human primary spermatocytes ?

- (1) 46
- (2) 23
- (3) 92
- (4) 12

Question Number : 243 Question Id : 4641991747 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Read the paragraph and answer the Question given below :

Humans are sexually reproducing and viviparous. The male reproductive system is composed of a pair of testes the male sex accessory ducts and the accessory glands and external genitalia. The female reproductive system consists of a pair of ovaries a pair of oviducts, a uterus, a vagina, external genitalia and pair of mammary glands. The reproductive cycle of female primates is called menstrual cycle. Menstrual cycle starts only after attaining sexual maturation (puberty). Coitus followed by fertilization leads to formation of zygote. After 9 months of pregnancy, the fully developed foetus is ready for delivery.

The transformation of spermatids into spermatozoa is known as :

- (1) Spermiation
- (2) Spermiogenesis
- (3) Spermatogenesis
- (4) Spermatogoniasis

Question Number : 244 Question Id : 4641991748 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Read the paragraph and answer the Question given below :

Humans are sexually reproducing and viviparous. The male reproductive system is composed of a pair of testes the male sex accessory ducts and the accessory glands and external genitalia. The female reproductive system consists of a pair of ovaries a pair of oviducts, a uterus, a vagina, external genitalia and pair of mammary glands. The reproductive cycle of female primates is called menstrual cycle. Menstrual cycle starts only after attaining sexual maturation (puberty). Coitus followed by fertilization leads to formation of zygote. After 9 months of pregnancy, the fully developed foetus is ready for delivery.

Which hormone is essential for maintenance of endometrium during luteal phase ?

- (1) Lutinising Hormone
- (2) Relaxin
- (3) Progesterone
- (4) Follicle Stimulating Hormone

Question Number : 245 Question Id : 4641991749 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Read the paragraph and answer the Question given below :

Humans are sexually reproducing and viviparous. The male reproductive system is composed of a pair of testes the male sex accessory ducts and the accessory glands and external genitalia. The female reproductive system consists of a pair of ovaries a pair of oviducts, a uterus, a vagina, external genitalia and pair of mammary glands. The reproductive cycle of female primates is called menstrual cycle. Menstrual cycle starts only after attaining sexual maturation (puberty). Coitus followed by fertilization leads to formation of zygote. After 9 months of pregnancy, the fully developed foetus is ready for delivery.

The nucleus is present in _____ of human sperm.

- (1) Middle piece
- (2) Acrosome
- (3) Head
- (4) Tail

Sub-Section Number : 3
Sub-Section Id : 464199113
Question Shuffling Allowed : No

Question Number : 246 Question Id : 4641991750 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Read the paragraph and answer the Question given below :

There is no natural habitat on earth known that is inhabited just by a single species. For any species, the minimal requirement is one more species on which it can feed. Even a plant species, which makes its own food, cannot survive alone and needs soil microbes to break down the organic matter in soil and return the inorganic nutrients for absorption. It is obvious that in nature, animals, plants and microbes do not and cannot live in isolation but interact in various ways to form a biological community.

Which of the following is **correct** among the following statements related to species interaction ?

- (1) *Calotropis* releases a strong smell to prevent cattles and goats to eat its leaves
- (2) Predators help in maintaining species diversity in a community
- (3) Totally unrelated species never compete for the same resource
- (4) Closely related species competing for the same resources cannot co-exist indefinitely even if the resources are unlimited

Question Number : 247 Question Id : 4641991751 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Read the paragraph and answer the Question given below :

There is no natural habitat on earth known that is inhabited just by a single species. For any species, the minimal requirement is one more species on which it can feed. Even a plant species, which makes its own food, cannot survive alone and needs soil microbes to break down the organic matter in soil and return the inorganic nutrients for absorption. It is obvious that in nature, animals, plants and microbes do not and cannot live in isolation but interact in various ways to form a biological community.

Which of the following set of organisms is an example of commensalism ?

- (1) *Pisaster* (starfish) and some invertebrates
- (2) Abingdon tortoise and goats
- (3) Sea anemone and clown fish
- (4) Flamingo and resident fishes

Question Number : 248 Question Id : 4641991752 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Read the paragraph and answer the Question given below :

There is no natural habitat on earth known that is inhabited just by a single species. For any species, the minimal requirement is one more species on which it can feed. Even a plant species, which makes its own food, cannot survive alone and needs soil microbes to break down the organic matter in soil and return the inorganic nutrients for absorption. It is obvious that in nature, animals, plants and microbes do not and cannot live in isolation but interact in various ways to form a biological community.

Which of the following is **not** classified into the category of parasites ?

- (1) Mosquito
- (2) Cuckoo
- (3) *Cuscuta*
- (4) Ticks

Question Number : 249 Question Id : 4641991753 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Read the paragraph and answer the Question given below :

There is no natural habitat on earth known that is inhabited just by a single species. For any species, the minimal requirement is one more species on which it can feed. Even a plant species, which makes its own food, cannot survive alone and needs soil microbes to break down the organic matter in soil and return the inorganic nutrients for absorption. It is obvious that in nature, animals, plants and microbes do not and cannot live in isolation but interact in various ways to form a biological community.

The process in which the fitness of one species (measured in terms of its 'r', the intrinsic rate of increase) is significantly lower in the presence of another species is known as :

- (1) Parasitism
- (2) Competition
- (3) Predation
- (4) Commensalism

Question Number : 250 Question Id : 4641991754 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Read the paragraph and answer the Question given below :

There is no natural habitat on earth known that is inhabited just by a single species. For any species, the minimal requirement is one more species on which it can feed. Even a plant species, which makes its own food, cannot survive alone and needs soil microbes to break down the organic matter in soil and return the inorganic nutrients for absorption. It is obvious that in nature, animals, plants and microbes do not and cannot live in isolation but interact in various ways to form a biological community.

Which of the following is not associated with realistic growth model ?

- (1) Sigmoid shaped growth curve
- (2) J - shaped growth curve
- (3) Verhulst - Pearl logistic growth
- (4) Logistic Growth