



BIOLOGY

BOOKS - TRUEMAN BOOK COMPANY BIOLOGY (HINGLISH)

AIPMT-(2015)(conducted by CBSE) (solved paper



1. Which of the following endoparasites of humans does show vivparity

A. Enterobius vermicularis

B. Trichinella spiralis

C. Ascaris lumbricoides

D. Ancylostoma duodenale

Answer:

2. Cryopreservation of gametes of threatened species in viable and fertile condition can be referred to as

A. Advanced ex-situ conservation of

biodiversity

B. In situ conservation by sacred groves

C. In situ cryo-conservation of biodiversity

D. In situ conservation of biodiversity

Answer:

3. Minerals known to be required in large amounts for plant growth include

A. calcium, magnesium, manganese, copper

B. potassium, phosphorus, selenium, boron

C. magnesium, sulphur, iron, zinc

D. phosphorus, potassium, sulphur, calcium

Answer:



4. Which of the following enhances or induces

fusion of protoplasts

A. Polyethylene glycol and sodium nitrate

B. IAA and kinetin

C. IAA and gibberellins

D. odium chloride and potassium chloride

Answer:

5. Which of these is not an important components of initiation of parturition in humans?

A. Synthesis of prostaglandins

B. Release of oxytocin

C. Release of prolactin

D. Increase in estrogen and progesterone

ratio

Answer:

6. In which of the following, gametophyte is not independent in free living ?

A. Marchantia

B. Pteris

C. Pinus

D. Funaria

Answer:



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

A. Acquired Immuno Deficiency Syndrome

(AIDS

B. Trichomoniasis

C. Encephalitis

D. Syphilis

Answer:



8. Leaves become modified into spines in :-

A. Pea

B. Onion

C. Silk Cotton

D. Opuntia

Answer:

9. Which one gives the most valid and recent explanation for stomatal movement?

A. Potassium influx and efflux

B. Starch hydrolysis

C. Guard cell photosynthesis

D. Transpiration

Answer:

10. Which of the following had the smallest

brain capacity

A. Homo sapiens

B. Homo neanderthaiensis

C. Homo habilis

D. Homo erectus

Answer:

11. High value of BOD (Biochemical Oxygen Demand) indicates that:

A. Water is highly polluted

B. Water is less polluted

C. Consumption of organic matter in the

water is higher by the microbes

D. Water is pure

Answer:



12. Sliding filament theory can be best explained as

A. Actin and Myosin filaments shorten and slide pass each other B. Actin and M yosin filaments do not shorten but rather slide pass each other C. When myofilaments slide pass each other, Myosin filaments shorten while Actin filaments do not shorten

D. When myofilaments slide pass each

other Actin filaments shorten while

Myosin filament do not shorten

Answer:

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13. A gymnast is able to balance his body upside down even in the total darkness because of

- A. Vestibular apparatus
- B. Tectorial membrane
- C. Organ of corti
- D. Cochlea

Answer:



14. A woman with blood group 'A' marries a woman with blood group 'B', the possible groups of offsprings are:

A. A, Band AB only

B. A, B, AB and O

C. O only

D. A and B only

Answer:

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15. The rate of growth of any organism follows

Or

Typical growth curve in plants is

A. Linear

- B. Stair-steps shaped
- C. Parabolic
- D. Sigmoid

Answer:



16. The UN Conference of Parties on climate in

the year 2011 was held in:

A. South Africa

B. Peru

C. Qatar

D. Poland

Answer:

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17. A technique of micropropagation is

A. Somatic embryogenesis

B. Protoplast fusion

C. Embryo rescue

D. Somatic hybridization

Answer:

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18. How many pairs of contrasting characters in pea plants were studied by Mendel in his experiments?

A. Six

B. Eight

C. Seven

D. Five

Answer:

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19. The crops engineered for glyphosate are

resistant/tolarant to

A. Bacteria

B. Insects

C. Herbicides

D. Fungi

Answer:

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20. Which of the following statements is not

cor-rect?

A. Goblet cells are present in the mucosa of

intestine ru"ld secrete mucus

B. Oxyntic cells are present in the mucosa

of stomach and secrete HCl

C. Acini are present in the pancreas and

secrete carboxypeptidase

D. Brunner's glands are present in the

submucosa of stomach and secrete

pepsinogen



21. In sea urchin DNA, which is double stranded, 17% of the bases were show to be cytosine. The percentages of the other three bases expected to be present in this DNA are

A. G 17%, A 16.5%, T 32.5%

B. G 17%, A 33%, T 33%

C. G 8.5%, A 50%, T 24.5%

D. G 34%, A 24.5%, T 24.5%

Answer:



22. In Bt cotton, the Bt toxin present in plant tissue as pro-toxin is converted into active toxin due to

- A. Acidic pH of the insect gut
- B. Action of gut micro-organisms
- C. Presence of conversion factors in insect

gut

D. Alkaline pH of the insect gut

Answer:

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23. Read the following five statements (A to E) and select the option with all correct statement
(A) Mosses and Lichens are the first organisms to colonise a bare rock.

(B) Seloginella is a homopourous

pteridophyte.

(C) Coralloid roots in Cycas have VAM.

(D) Main plant body in bryophytes is gametophytic whereas in pteridophytes it is sporophytic.

(E) In Gymnoperms, male and female gametophytes are present within sporangla located on sporophyte.

A. (B), (C) and (D)

B. (A), (D) and (E)

C. (B), (C) and (E)

D. (A), (C) and (D)

Answer:

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24. Which one of the following is correct?

A. Serum= Blood + Fibrinogen

- B. Lymph= Plasma + RBC + WBC
- C. Blood = Plasma + RBC + WBC

Answer:



25. The movement of a gene from one linkage group to an other is called

A. Duplication

B. Translocation

C. Crossing over

D. Inversion

Answer:



26. which body of the government of india regulates GM reserch and safety of introducing GM organisms of public services ?

A. Indian Council of Agricultural Research

B. Genetic Engineering Approval



Manipulation

D. Bio-safetycommittee

Answer:

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27. Rachel Carson's famous book "Silent

Spring" is related to:

A. Noise pollution

- B. Population explosion
- C. Ecosystem management
- D. Pesticide pollution

Answer:

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28. Gastric juice of infants contains

A. nuclease, pepsinogen, lipase

B. pepsinogen, lipase, rennin

C. amylase, rennin, pepsinogen

D. maltase, pepsinogen, rennin

Answer:



29. Which of the following is not one of the prime health risks associated with greater UV radiation through the atmosphere due to depletion of stratospheric ozone?

A. Reduced Immune System

B. Damage to eyes

C. Increased liver cancer

D. Increased skin cancer

Answer:

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30. Capacitation refers to changes in the

A. ovum before fertilization

- B. ovum after fertilization
- C. sperm after fertilization
- D. sperm before fertilization

Answer:

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31. Most animals are tree dwellers in a

A. thorn woodland

B. temperate deciduous forest

C. tropical rain forest

D. coniferous forest

Answer:

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32. True nucleus is absent in

A. Mucor

B. Vaucheria

C. Volvox

D. Anabaena

Answer:

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33. Glenoid cavity articulates

A. Scapula with acromion

B. Clavicle with scapula

C. Humerus with scapula

D. Clavicle with acromion

Answer:



34. Transmission tissue is characteristic feature of

- A. Solid style
- B. Dry stigma
- C. Wetstigma
- D. Hollow style





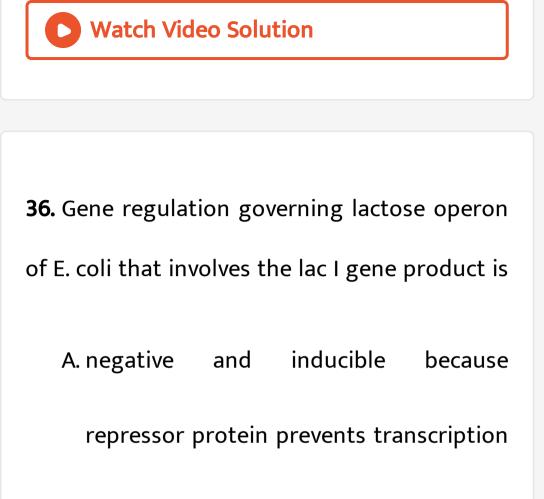
35. DNA is not present in :

A. Ribosomes

B. Nucleus

C. Mitochondria

D. Chloroplast



B. negative and repressible because

repressor protein prevents transcription

C. feedback inhibition because excess of β -

galactosidase can switch off trascription

D. positive and inducible because it can be

induced by lactose

Answer:



37. Which of the following does not favour the

formation of large quantities of dilute urine

A. Caffeine

B. Renin

C. Atrial-natriuretic factor

D. Alcohol

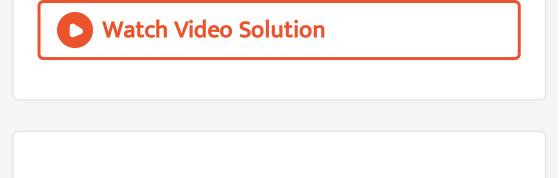
Answer:



38. What causes a green plant exposed to the light on only one side, to bend toward the source of light as it grows

A. Green plants seek light because they are phototropic B. Light stimulates plant cells on the lighted side to grow faste C. Auxin accumulates on the shaded side, stimulating greater cell elongation there. D. Green plants need light to perform

photosynthesis



- **39.** Nuclear envelope is a derivative of
 - A. Membrane of Golgi complex
 - B. Microtubules
 - C. Rough endoplasmic reticulum
 - D. Smooth endoplasmic reticulum

Answer:

40. Keel is the characteristic feature of flower of

A. Indigofera

B. Aloe

C. Tomato

D. Tulip

Answer:

41. Perigynous flowers are found in

A. Cucumber

B. China rose

C. Rose

D. Guava



42. A chemical signal that has both endocrine

and neural roles is

A. Calcitonin

B. Epinephrine

C. Cortisol

D. Melatonin

Answer:

43. HIV that causes, AIDS first starts destroying

A. Leucocytes

B. Helper T- Lymphocytes

C. Thrornbocytes

D. B- Lymphocytes

Answer:

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44. Hysterectomy is surgical removal of:

A. Prostate gland

B. Vas-deference

C. Mammary glands

D. Uterus

Answer:

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45. Removal of proximal convoluted tubule

from the nephron will be result in

A. Moreconcentrated urine

B. No change in quality and quantity of

urine

- C. No urine formation
- D. Morediluted urine



46. A major characteristic of the monocot root

is the presence of

A. Scattered vascular bundles

B. Va sculature without cambium

C. Cambium sandwiched between phloem

and xylem along the radius

D. Open vascular bundles



47. Which of the following characteristics is mainly responsible for diversification of insects on land?

A. Bilateral symmetry

B. Exoskeleton

C. Eyes

D. Segmentation

Answer:

48. Which of the following cells during pametogenesis is normally diploid?

A. Spermatid

B. Spermatogonia

C. Secondary polar body

D. Primary polar body

Answer:

49. The structures that are formed by stacking of organized flattered membrances sacs in the chloroplasts are

A. Grana

- B. Strama lamellae
- C. Stroma
- D. Cristae



50. the chromosomes in which centromere is

situated close to one end are :

A. Acrocentric

B. Telocentric

C. Sub-metacentric

D. Metacentric

Answer:

51. In a ring girdled plant :

A. The root dies first

B. The shoot and root die together

C. Neither root nor shoot will die

D. The shoot dies first

Answer:

52. Vertical distribution of different species occupying different levels in a biotic community is known as

- A. Stratification
- **B.** Zonation
- C. Pyramid
- D. Divergence



53. Multiple alleles are present:

- A. At different loci on the same chromosome
- B. At the same locus of the chromosome
- C. On non-sister chromatids
- D. On different chromosomes

Answer:

54. The mass of living material at a trophic level at a particular time is called:

A. Standing state

B. Net primary productivity

C. Standing crop

D. Gross primary productivity

Answer:

55. Which of the following animals is not viviparous?

A. Elephant

B. Platypus

C. Whale

D. Flying fox (Bat)

Answer:

56. In an ecosystem the rate of production of organic matter during photosynthesis is termed as

- A. Gross primary productivity
- B. Secondaryproductivity
- C. Net productivity
- D. Net primary productivity

Answer:

57. Erythropoiesis starts in

A. Liver

B. Spleen

C. Red bone marrow

D. Kidney



58. Which is the most common mechanism of genetic varisation in the popullation of a sexually-reproducing organism

A. Chromosomal aberrations

B. Genetic drift

C. Recombination

D. Transduction

Answer:

59. Blood pressure in the mammalian aorta is maximum during

A. Diastole of the right ventricle

B. Systole of the left ventricle

C. Diastole of the right atrium

D. Systole of the left atrium

Answer:

60. When you hold your breath, which of the following gas changes in blood would first lead to the urge to breathe

A. rising CO2 concentration

B. falling CO2 concentration

C. rising CO2 and falling 0 2 concentration

D. falling 0 2 concentration

Answer:

61. Vascular bundles in monocotyledons are considered closed because :

A. Cambium is absent

- B. There are no vessels with perforations
- C. Xylem is surrounded all around by

phloem

D. A bundle sheath surrounds each bundle



62. Male gametes are flagellated in

A. Anabaena

B. Ectocarpus

C. Spirogyra

D. Polysiphonia

Answer:

63. Which one of the following may require pollinators but is generatically similar to autogamy

A. Xenogamy

B. Apogamy

C. Cleistogamy

D. Geitonogamy

Answer:

64. In ginger vegetative propagation occurs through

A. Offsets

B. Bulbils

C. Runners

D. Rhizome

Answer:

65. Which one of the following is not an inclusion body found in prokaryotes ?

A. Cyanophycean granule

B. Glycogen granule

C. Polysome

D. Phosphate granule

Answer:

66. A somatic cell that has just completed has just completed the S-phase of its cell cycle, as compared to gamete of the same species, has

A. same number of chromosome but twice

the amount of DNA

B. twice the numeber of chromosomes and

four times the amount of DNA

C. four times the number fo chromosomes

and twice the amount of DNA

D. twice the number of chromosomes and

twice the amount of DNA

Answer:

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67. Alleles are:

A. true breeding homozygotes

B. different molecular forms of a gene

C. heterozygotes

D. differentphenotype

Answer:

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68. Select the correct matching in the following pairs:

A. Smooth ER-Synthesis of lipids

B. Rough ER-Synthesis of glycogen

C. Rough ER - Oxidation of fatty acids

D. Smooth ER-Oxidation of phospholipids

Answer:

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69. The targa, sterna and pleura of cockroach body are joined by

A. Muscular tissue

B. Arthrodial membrane

C. Cartilage

D. Cementing glue

Answer:

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70. Which of the following regions of the brain is incorrectly paired with its function

A. Cerebellum - language comprehension

B. Corpus callosum-communication

between the left and right cerebral

cortices

C. Cerebrum-calculation and contempla-

tion

D. Medulla oblongata - homeostatic control

Answer:

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71. Which one of the following statements is

not true

A. Pollen grains of some plants cause severe allergies and bronchial afflictions in some people B. The flowers pollinated by flies and bats secrete foul odour to attract them C. Honey is made by bees by digesting pollen collected from flowers D. Pollen grains are rich in nutrients, and they are used in the form of tablets and syrups





72. The active form of Entamoeba-histolytica feeds upon

A. mucosa and submucosa of colon only

B. food in intestine

C. blood only

D. erythrocytes, mucosa and submucosa of

colon

Answer:

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73. Which of the following viruses is not transferred through semen of an infected male

A. Human immunodeficiency virus

B. Chikungunya virus

C. Ebola virus

D. Hepatitis B virus

Answer:

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74. A population will not exist in Hardly-Weinberg equilbrium if

A. There are no mutations

- B. There is no migration
- C. The population is large
- D. Individuals mate selectively

Answer:

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75. The guts of cow and buffalo possess

A. Chlorella spp

B. Methanogens

C. Cyanobacteria

D. Fucus spp

Answer:



76. The hilum is a scar on the :

A. Fruit, where it was attached to pedicel

B. Fruit, where style was present

C. Seed, where micropyle was present

D. Seed, where funicle was attached

Answer:

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77. Secondary succession takes place on/in

- A. Degraded forest
- B. Newly created pond
- C. Newly cooled lava
- D. Bare rock

Answer:



78. Which one of the following statements is wrong?

A. Agar -agar is obtained from Gelidium and Gracilaria

B. Chlorella and Spirulina are used as space

food

C. Mannitol is stored food in

Rhodophyceae

D. Algin and carrageen are products of

algae

Answer:

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79. Match the disease with its correct type of

vaccine

- (A) tuberculosis
- (B) whooping cough (ii) inactivated toxin
- (C) diphtheria
- (D) polio

- (i) harmless virus
- (iii) Killed bacteria
- (iv) harmless bacteria

A.	a	b	с	d
	a iii	D ii	iv	i
Β.	a	\mathbf{b}	c ii	d
	\mathbf{a} iv	iii	ii	i
C.	a	b ii	с	d
	a i	ii	iv	iii
D.	a	b	с	\mathbf{d}
	ii	i	iii	iv

Answer:

80. Which of the following are the important floral rewards to the animal pollinators

- A. Nectar and pollen grains
- B. Floral fragrance and calcium crystals
- C. Protein pellicle and stigmatic exudates
- D. Colour and large size flower

Answer:

81. An abnormal human baby with XXX sex

chromosomes was born due to

A. formation of abnormal ova in the mother

- B. fusion of two ova and one sperm
- C. fusion of two sperms and one ovum
- D. formation of abnormal sperms in the

father

Answer:

82. Transpiration and root pressure cause water to rise in plants by

A. Pulling and pushing it, respectively

B. Pushing it upward

C. Pushing and pulling it, respectively

D. Pushing it upward

Answer: