

# JAMB 2021 Biology Questions and Topics

1. Where is Kanji National Park located?
2. Plasmolysis is caused by?
  - A. Endosmosis
  - B. Exosmosis
  - C. Endocytosis
  - D. Endocytosis
3. What is the component of mammalian blood?
4. What is used to manufacture paper?
5. Oxyacetylene flame is used in \_\_\_\_\_
6. Some questions were drawn from these topics: Mycorrhiza association, Alkaloids, digestive system of man structure, Male reproductive system.
7. Which of the following is used in settling paternity dispute? Ans: DNA
8. Diagram of the digestive system, a question as follows; Which labelled part is the emulsification of fat done?
9. Diagram of a map consisting of the 4 major biomes, but it was labelled with numbers, questions as follows,
  - a – which is the tropical rain forest?
  - a – which has the longest annual rainfall?
10. Which of the following possesses alternation of generation?
11. What are molasses?
12. Factors that affect evaporation?
13. Mycorrhizae is an association in...
14. We were given a diagram of the digestive system. Which of the following parts emulsifies fats?
15. The soldier termite is different from the worker termite due to the possession of....
16. Dispersion in termite colony is carried out by.....
17. Plasmolysis in plant occurs due to ....
18. Alkaloids which is an excretory product of plant is used for making.....
19. Breathing roots are seen in
20. Denitrifying bacteria removes nitrogen via

21. Mycorrhizah is a relationship between
22. Nephridium is used in
23. which of these reduced worn out in bone  
Option: cartilage, synovial membrane.
24. Which increases population  
Options: Immigration ,emmigration, mortality
25. Impermeable to water is
  - A. Cuticle
  - B. Cambium
26. Bacteria helps to degrade
  - A. Industrial Waste
  - B. Domestic waste
  - C. Agriculture
27. A carrier man for albino and homozygous woman marry . how many children carry albino.  
25% 50% 75% 100%
28. Probability if a woman to have X chromosomes.
29. Paternity is best determined by
  - A DNA test
  - B. Finger print
30. number of dentition for rabbits
31. which of the following is a type of as\*xual reproduction
32. condition for osmosis
33. which is a morphology variation
34. what develop into seed (a) ovule (b) ovary (c) capel (d) filament
35. a diagram showing a type of placenta, then what type is it
36. a diagram showing the nephron, then label a part
37. which of the following aid fruit ripening
38. vitamin B2 is know as \_\_\_\_\_
39. Plant cell is plasmolysed as a result of? a)endosmosis b) endocytosis  
c)exosmosis d) exocytosis
40. One of the most important driving factors for evolution is? Ans:  
Mutation
41. Alkaloids are excretory products used to produce ? a)Gum b)Drug

42. The process that is Carried out by denitrifying bacteria is? a) Converts nitrite to nitrate b)convert ammonia to nitrite c) convert nitrate to atmospheric nitrogen
43. The soldier termites differ from the worker termites by? Ans: Large head and strong mandibles
44. Which of the following can lead to increase in size of population? a) Emigration b) Natalty c)Mortality d)Disease
45. Terrestrial vertebrates respire with the aid of?? a)Gills b)Lungs c)Skin
46. The nephridium is used in which of the following organisms  
a)Roundworms b) Flatworms c)Earthworm
47. Which of the following internal condition is necessary for Seed germination? a) Adequate temperature b) Water c)Seed viability d)air
48. A character expressed in a female only when it is homozygous but expresses itself in the male always is ..? Ans: s\*x Linked
49. If a man who's a carrier for albinism marries an albino, what percentage of their children will be albinos? a) 25% b)50% c)100% d)75%
50. Territory formation in agama lizard enhances ??
51. The structure that protects articulating surfaces of bones at a joint to prevent it from being worn out is? a) Cartilage b) Synovial membrane
52. Dispersing a termite colony is carried out by? a)Wingless reproductive b)Winged reproductive
53. The Mycorrhiza is ..? Ans: Relationship between root of higher plant and fungus
54. Possession of breathing roots is for trees grown in? Ans:Mangrove
55. Distribution of tilapia fish is affected by ? a) Temperature b)Salinity c) Humidity d) Pressure
56. The most primitive among these is?
57. a)Fern b) Flowering plants c)Fungus d) Cones
58. The layer of dicot stem impermeable to liquids and gases is the.?  
a)Cambium b)Cortex c)Cuticle d) Epidermis
59. The liquid component of mammalian blood is? a)Red blood cell  
b)Plasma c)White blood cell
60. Soil conservation means? a)Ridging along the slope b) Ridging across the slope

61. The white layer of connective tissue protecting the eye is? a) Choroid  
b) Sclera
62. The probability of a woman producing X chromosome is a) 100% b) 0%  
c) 50% d) 75%
63. (Diagram of male reproductive system.) -Identify the part which is the vas deferens -identify the part where the sperm fluid is stored
64. (Diagram of fingerprint) -What is the diagram above most efficient for?  
Ans: crime detection
65. The fingerprint above is? Ans: arch fingerprint
66. (Diagram on the digestive system)- Asked to identify the Large intestine. -Identify the place where emulsification of fats take place .
67. (Diagram of the evolution of Modern horse) -What type of phenomenon is exhibited above? Ans: Evolution -The need for the one toed horse is due to what type of soil??

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## JAMB 2021 Chemistry Questions and Topics

1. If 93cm<sup>3</sup> of SO<sub>2</sub> diffuses in 16s. How long will it take the same volume of H<sub>2</sub>S to diffuse
2. Silicon is used to remove.... from roasted copper ore
3. Questions on organic chemistry were also asked. which of the following can be used to differentiate the two compounds above.
4. Name the hydrocarbon above
5. The phenomenon which makes Na to have an atomic mass of... and Mg to have an atomic mass of ..... is ...
6. The energy needed to be overcome for reaction to take place is ....
7. naming of hydrocarbon.
8. which of the following is an acidic salt
9. Boyle's and Charles law
10. stoichiometry calculations
11. allotropes of sulphur
12. electrochemical calculations/Faraday's law calculations

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13. color using phenolphthalein indicator on an acid
14. activation energy
15. alloys, duralumin
16. metals and their compounds

## CHEMISTRY

1. Electrovalent compounds are solid at room temperature because?

Ans: because they have high melting point

2. Which of these has a double bond?

a)butane b)methane c)acetylene d)butene

3. (Write the Equilibrium constant be for a reaction i.e Product/reactants blah blah blah)

4. Which of these is used in the production of paper?

a) Caramel b) Cellulose

5.  $\text{KClO}_3 \rightarrow \text{O}_2 \dots$

The function of  $\text{MnO}_2$  is ...

Ans: Catalyst

6. The relative atomic mass of Sodium and Magnesium are 22.9898 and 24.312 respectively... The reason for this is???

Ans: Isotopy

7. Elements undergo reaction to ?

Ans: Achieve stable configuration

8. (Structure of an alkanal and alkanone) – which of these is used to distinguish between these two?

Ans: Fehling's solution.

9. Calculations involving Electrolysis ( $Q=IT$ ) and Faraday's constant

10. Temporary hardness is removed by?

a)  $\text{Ca(OH)}_2$  b)  $\text{NaOH}$  c)  $\text{Na}_2\text{CO}_3$  d)  $\text{CaCO}_3$

11. Something about use of Oxygen in Iron extraction

12. Silica is added roasted copper to form ?? (In the extraction of copper)

13. The monomer of Poly (chloroethene) is?

Ans: chloroethene

14. Brass is an alloy of Cu and ?

Ans Zinc

15. The property of a metal to be drawn into thin wires is?

Ans: Ductility

16. The relationship between Oxygen and Ozone is?

a) Isotope b) allotropes c) Isomers

Ans: Allotropes.

17. Structure of 2,2,4 trimethylpentane

18. Which of this can be used in making perfume ? a) benzene

b) ethane c) Ethyl Ethanoate

19. Calculation involving mole, volume and molar concentration

20. Something about the molar solution of a compound...- We're asked to tell which combination would give us the molar solution

I think the answer was 56g of (Compound) in  $1000\text{cm}^3$

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# JAMB 2021 Physics Questions and Topics

1. Questions under wave, friction, density, expansivity, optics, speed and gravitation
2. Calculation on Pressure
3. Question on effective capacitance.
4. Question on Gravitational intensity. We are to find the mass and we were given the Gravitational intensity and radius
5. Questions on Power came out.
6. The type of friction in fluids is called..
7. If the same quantity is supplied to P and Q and P has a temperature rise twice that of Q and has a mass that is half of the mass of Q. Find the ratio of the specific heat capacity of P to Q
8. Which of the following plants exhibit Alternation of generation Ans: Ferns
9. Image of pinhole camera calculations
10. Linear expansivity
11. Voltage, capacitors in series and parallel calculations
12. Questions from wave, temperature measurements, electromagnetic induction and pressure.
13. dimensions for impulse
14. find the resultant force of two vectors
15. find the pressure of force 40N and area of 20m<sup>2</sup>
16. they asked a question about centrifugal force, I can't remember
17. question on linear expansivity
18. question on heat energy
19. half life
20. galvanometer/ammeter reading calculation etc
21. Calculations involving Current, Resistance and Voltage( $V=IR$ )
22. Calculation for potential energy

23. Calculation for The Resistance, when giving Power and Voltage (came out Twice)  $W=V^2/R$
24. Calculations involving echo ( $v=2d/t$ )
25. Friction in liquids is? Ans: Viscosity
26. Calculate for Mechanical advantage when given load and effort
27. Calculate for increase in length when given linear expansivity, temp change and original length
28. Something about comparing the ratio of the Heat of Object P to Object Q if the temperature change for P is twice that of Q and if the mass of P is half that of Q. Ans: 1:1
29. When water passes from shallow zone to deeper zone, its.. a) Frequency remains constant b) velocity increases c) Wavelength decreases d) velocity remains constant
30. Calculation involving temperature conversion from a resistance thermometer to celcius scale
31. Temperature conversion from Celsius to Kelvin
32. Moment of force(calculate the weight of the metre rule)
33. Vision from both eyes is said to be? Ans: Binocular vision
34. Electron orbiting round nucleus has a) Potential energy only b) Kinetic energy only c) Potential energy and kinetic energy .
35. They asked for the formula for time of half life. Ans:  $T_{1/2} = 0.693/\text{Wavelength}$
36. Calculation for image distance in concave mirror

17. Also asked for the equation corresponding to the ball falling in viscous liquid

Ans:  $W-U-V=mg$

18.  $I=30\sin 100\pi t$ . Calculate the I(RMS) value.

a)  $\sqrt{2}/30$  b)  $30/\sqrt{2}$  c) 30

19. What is the mass of a sphere if the radius is 10cm.  
[density= $2.3 \times 10^3 \text{kg/m}^3$ ]

Ans: Use Volume of sphere =  $\frac{4}{3}\pi r^3$  and then, Mass= Volume\*density (also convert the radius to meter)

20. Calculation of Image height when given length of camera, object height, object distance (I think)

21. Calculate the relative motion of a car moving 45m/s East and another care moving 15m/s West. Ans:  $45 - 15 = 30$  (My values might not tally with the main exam here)

22. Calculate for the height, when given pressure, density and gravity. Ans: Use  $P = \rho gh$

23. Calculate the force constant of a spring when given the extension and Energy..Ans Use  $E = \frac{1}{2}Ke^2$  (I still didn't see the answer there lmao)

24. Which of these colours combine to give white?

a) Blue +Cyan

b) Blue +Green+Magenta

c) Red+green+Cyan

d) Magenta +Red

25. Calculate the velocity of a transverse wave, when the Length is 2m, and the frequency is 200m/s

26. I. Humidity II space above liquid III surface area IV Temperature

Which combination of the above will affect the rate of evaporation?

27. Calculate the effective Inductance (diagram)

28. Calculate the effective capacitance (diagram)

29. Something about Calculating the mass of a body of radii 6400km and gravitational field strength of 10N/kg?

## **JAMB 2021 Mathematics Questions and Topics**

1. matrix, polynomials, integration and differentiation, set, probability, inequalities and statistics
2. cumulative frequency is drawn on a graph to get the — Answer is median
3. Find the value of  $x$   $3^{(x-2)} + 3^x = 4$
4. in how many ways can the word MATHEMATICS be arranged
5. find  $n$  |  $7 \cdot 3 \cdot n - 4 \cdot n - 1$
6. multiplication in base 3
7. differential calculus
8. integral calculus
9. mensuration
- 10.

## JAMB 2021 Economics Questions and Topics

\*Question 1:\* Which of the following rewards is associated with entrepreneurship

- A. salaries
- B. profits
- C. interest
- D. rent

Answer- 1: The reward for entrepreneurship is profit. Profit is described as the financial benefit gotten when the revenue generated from a business activity exceeds the expenses, costs, and taxes paid.

An entrepreneur is an individual who creates or owns a business and combines all the factors of production to make a profit.

\*Question 2:\* Which of the following is likely to be inflationary

- A. taxes increase
- B. increase in unemployment
- C. budget surplus
- D. wages increase

Answer 2: Increment in wages and salaries will lead to inflation. This happens when business owners raise the minimum wage, leading to a corresponding rise in the prices of their goods or services, thereby causing inflation.

Remember inflation happens when there is excess money in the economy, thereby causing a general rise in prices.

\*Question 3:\* Fiduciary issue is that part of?

- A. the issue of notes backed entirely by gold
- B. a country's currency that is not negotiable
- C. the issue of notes not backed by gold
- D. a country's currency officially issued

Answer 3: C is correct

The fiduciary issue is that portion of a note issued by the government that is not matched by government holdings of gold or other securities or that part of a note that lacks the backing of metal or coin or assets capable of being converted into coin.

\*Question 4:\* The type of business finances that entitles the holder to a fixed rate of dividend is?

- A. preference stock
- B. common stock
- C. debentures
- D. bank loan

Answer 4: C is correct

A debenture is a long-term debt security issued by a company and secured against assets, to raise capital for a business. The holder of a debenture is entitled to a fixed rate of interest at the maturity of the debt.

\*Question 5:\* A company's expenditure on raw materials is regarded as?

- A. explicit cost
- B. implicit cost

- C. prime cost
- D. average cost

Answer-5: Explicit costs are direct payments incurred by a firm in the course of running a business. These are costs actual and physical costs incurred by a firm. Examples of explicit costs include wages, lease payments, utilities, raw materials, and other direct costs

A is correct

\*Question 6:\* Firms are often set up close to each other in order to take advantage of?

- A. supply of skilled labour
- B. agglomeration economies
- C. internal economies of scale
- D. external economies of scale

Answer: D is correct

\*Question 7,\* A situation in which a commodity is sold abroad below its cost of production in the home country is known as?

- A. dumping
- B. counter trade
- C. bilateral trade
- C. trade liberalization

Answer-7: Dumping is a term used to describe a market situation where an exporter firm sells its product in an international market for a price lesser than its cost of production in the home country

A is correct

\*Question 8:\* The factor of production that has the highest degree of mobility is?

- A. land
- B. labour

- C. capital
- D. entrepreneur

Answer 8: B is correct

Labour has the highest mobility, that is why people easily move from one place to another or switch jobs with ease

\*Question 9:\* In recent times, agriculture in Nigeria tends to lose its vital labour force as a result of?

- A. lack of an effective agricultural policy
- B. employment opportunities in the agricultural sector
- C. rural-urban drift
- D. low prices of agricultural products

Answer 9: C is correct

Rural-urban drift is a situation where the desire for better employment, business opportunities, and education pushes both young and old out of the rural areas to the urban areas. This is one of the major problems facing the agricultural sector in Nigeria

\*Question 10:\* The most important goal of OPEC is to?

- A. present a united front for the purpose of raise prices of crude oil
- B. bring unity among the petroleum exporting countries
- C. ensure political stability among member states
- D. ensure that rules on quota production are strictly followed

Answer : Correct Answer: Option D

## **JAMB 2021 Agric Questions and Topics**

Agric was majorly dominated by questions under genetics, cropping systems, ecological zones in West Africa, pests and diseases

# JAMB 2021 Government Questions and Topics

Communalism

Authority

Power

Constitutionalism

Attributes of the state

Control of the state

Decentralization and centralization

Parliament

Republic

1. Why did Nigeria get suspended from commonwealth?

Ans. Bcus of the murder of Dele Giwa

2. The 1979 elected was conducted by

A. Federal Electoral of Nigeria

B. National electoral commission

C. national electoral commission of Nigeria

D. Federal electoral commission

I first chose A but after proofreading and made amendments

“CAREFULNESS!”

3. Who completed the states to 36?

A. Sani Abacha

B. IBB

C. Murtala

D. Gowon

A correct

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4. Who introduced War Against Indiscipline and Corruption?

A. IBB

B. Buhari

C. murtala

D. Sani

B correct

5. In IBB's reign, the part system was

A. 1

B. 2

C. 3

D. Multi

6. The authority of government is acted in accordance with the constitution. this principle presupposes

A. Rule of law

B. Constitutionalism

C. Legitimate govt

7. The legality of a government is called

A. Sovereignty

B. Legitimacy

C. Authority

D. Power

8. Sovereignty is an attribute of

A. nation

5. Ajumobi

A. Stays close to her wife

B. is a polygamist who mistreats his wives

C. Owns large cocoa plantation

6. Bigger Thomas killed Mary with

A. Knife

B. Pillow

C. Sickle

D. Spade

7. Who is Peggy

A. Dalton's maid

B. Mary's friend

C. Daughter of Dalton

8. Ochuole deceived Alohp due to her

A. Desperation

B. Inconsideration

9. Who are proved to be close friends forever

A. Madam Hoha and Ochuole

B. Fofo and Ogeyi

C. Yabubu and Inaku

10. I spend my days in drooping silence from school boy represents?

**JAMB 2021 CRS Questions and Topics**

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1. Jonah is from where

A. Hebrew

B. Philistine

2. Abraham's response to Issac requested where the lamb for sacrifice was?

A. The lord will provided

B. It is already there

C. We won't use lamb this time around

3. The following except one are spiritual gifts

A. Utterance of Knowledge

B. Gift of healing

C. Gift of hearing

D. Speaking in tongues

Ans. c

4. Jesus fed the five thousand men with

A. Five loaves of bread and two fishes

B. Two loaves and five fishes

C. Two loaves and two fishes

D. five loaves and five fishes

A correct

5. The people thought Jesus as

A. John the baptist

B. Moses