Biology (New Book) - 9th Class Biology Urdu Medium Chapter 1 Preparation

Q1. How is the profession of medicine and surgery differente from animal husbandry?

Ans 1: Medicine and surgery
The profession of medicine deals with the diagnosis and tretment of diseases In surgery the defective parts of the body are repaired , replaced of remvoed

Ans 2: For this profession, sutdents need to complete a 5-Years Bachelor of Medicine, Bachelor of surgery MBBS degree

Ans 3: Animal Hsbandry:
This field involves breeding and caring for livestock to improve their quality and productivity

Ans 4: For this profession students can pursue a 4-Years BS degree in Animal Husbandry

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Q2. Write major observations about malaria.

Ans 1: There were four major observations about malaria.
a) Malaria and marshy areas hae some relations
b) Quinine is an effective drug for treating malaria.
c) Drinking the water of marshes does not casue malaria
d) Plasmodium is seen in the blood of malarial patient.

Q3. Define Anatomy

Ans 1: It is the branch of Biology that explores the internal physcal structure of organisms particulary humans.

Ans 2: Application :It helps in disease diagnosis medical device development, and improving quality of life
Example: The study of the organs of the digestive system.

Q4. What is the contribution of the followign scientists.
a) A.F.A.King
b) Ronald Ross
c) Laveran

Ans 1: a) A.F.A. King
In 1883, a physician A.F.A. King listed twenty obserations. Some impottant obserations of king are
1. People who slept outdoors were more likely to get malaria than those who slept indoors.
2. People who slept under fine nets were less likely to get malaria than those who did not use such nets.
3. People who slept near a smoky fire usually did not get malaria. On the basis of these obserations King suggested a hypotheisi. "Mosquitoes transmit Plasmodium so are involved in the spread of malaria".

Ans 2: Ronald Ross:
Ross, a British army physician working in India performed important experiment to confirm that mosqueito transmits plasmodium

Ans 3: Laveran:
A french physician Laveran in 1882 formulated followign hypothesis on the basis of malarial observatins.
"Plasmodium is the cause of malaria".

Q5. How can a scienteist apply the scientific method to confirm and obseration that a certain platn species grows more quickly in hady places than in direct sunlight?

Ans 1: Scientist will use the following steps of scietific method to verity the given observation about the effect of sulight on the growth of certain plant species.

Ans 2: 1. Hypothesis: According to the given obsertions scientist will form a hypotheis that the plant specie grows more quickly in shady places than in direct sunlight.

Ans 3: 2. Experimentation : The scientist will set up two grops of the same plant species under controlled conditions, one in shady areas and the othe rin direct sunlight Factors like soil type, water, and nutrients would be constant.

Ans 4: Data collection and analysis: After experimentation the scientist will measures the growth of plants in both groups over a set peiod and will compare teh results.

Ans 5: Conclusion: Base don the data, the scietist decides if the hypothsis is correct. If the shady platns grow faster, the hypothesis is confirmed. If not, the scientist may nee dto rethink the idea.

Q6. What are basic charactristics of hypothesis.

Ans 1: Characteristics of Hypothesis:
A hypotheiss has the followign characteristics.
> It is proposed statement to answer the problem
> It always matches with the available observations.
> It can be tested through experiments
> There si always a way to disprove the hypothesis.

Q7. How interdisciplinary collaboration is helpful in medical research?

Ans 1: Interdisciplinary collaboration promotes innovation and addresses real world challenges in medicla research

Ans 2: Example: In cancer research oncologist, Biologist biochemists, geneticists, pharmacologists and statiticians work in collaboration.

Q8. Inquisitive Questions:
1. Why is it importnat to classify biology into differente brahcnes such as botany.

Ans 1: Classigying biology into branches like botany, zoolyogy, and microbiology helps scientists to focus on specific area, making research deeper and more effective. For example botanists study plants, zoologist stdy animals, and microbiologists, study tiny organismsm like bacteria. This specialization leads to better discoveries,like nw medicines, way to protect endangered species, or crops that grow in tough conditions. It also allows by dividing biology into smallesr branches, scientists can learn more, solve real-world issues, and make life better for everyone.

Q9. Define Palaeontology

Ans 1: It is the branch of Biology that deals with the study of fossi

Ans 2: Application : The examination of fossils helps scienteists to know the evolutionary history of organisms.

Ans 3: Example: Dinosar fossils provide evidence of gaint reptiles that roamed the Earth millions of years ago

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Q10. Difference between qualitative and quantitative obserations.

Ans 1: Qualitative Observations:
These involve characteristics that cannot be measrued with number
ii. These are less accurate
example Colour of parrot
Colour of eat

Ans 2: Quantitative Observation :
i. Thses involve measurements or numerical data that can be epressed in terms of quantity

Ans 3: ii. These are more accurate
Example: Height of a human
