



EXAM KHANI
Free Online
Courses Platform

EXAM KHANI

ان لائن کورسز پلیٹ فارم، جو
طلباء اور اساتذہ کو نزدیک لائے۔

OPEN FOR REGISTRATION

ہماری طرف سے بلکل فری علاقے کے غریب طلباء اور
غریب والدین کیلئے ایک چھوٹا سا تحفہ۔

طلباء کیلئے

- ✓ مکمل کورس کوریج
- ✓ آن لائن کوسچن انسر سیسٹم
- ✓ شروعات سے امتحان تک ریکارڈڈ کلاسز تک رسائی
- ✓ ویب سائٹ پر ہر چیپٹر سے متعلق ایٹا طرز کا ٹیسٹ
- ✓ وائسپ گروپ سپورٹ امتحان تک
- ✓ لائیو کلاسز (جلد آ رہے ہیں)
- ✓ ڈاؤنلوڈ ایبل پی ڈی ایف گائیڈز اور کتابیں
- ✓ تمام کورسز کے پاسٹ پیپرز

ENROLL NOW contact@examkhani.com www.examkhani.com

KPK Class 11 Biology Conceptual Questions – Chapter 6

Prokaryotes

Q1: Why has Monera become obsolete?

ExamKhani KPK best free online courses platform with downloadable books, guides, past papers and etea-based tests. Your board toppers are already at ExamKhani.

Answer: The kingdom Monera became obsolete because it grouped all prokaryotes, including bacteria and archaea, under one category. However, significant genetic and biochemical differences between these groups were discovered, leading to their reclassification into separate domains: Bacteria and Archaea. ☒

Q2: What is a domain? Why is this term coined?

Answer: A domain is the highest taxonomic rank in the classification of life. It was coined to reflect the fundamental differences at the genetic and molecular levels between organisms, leading to the classification of life into three domains: Bacteria, Archaea, and Eukarya. ☒

Q3: What is the role of prokaryotes in supporting life on earth?

Answer: Prokaryotes play a crucial role in supporting life on Earth by recycling nutrients, fixing nitrogen, decomposing organic matter, and forming symbiotic relationships with other organisms. They are essential for the continuation of biogeochemical cycles. ☒☒

Q4: What are the main differences between archaea and bacteria?

Answer:

- Cell Wall Composition: Archaea have unique cell wall components lacking peptidoglycan, while bacteria's cell walls contain peptidoglycan.
 - Membrane Lipids: Archaea have ether-linked lipids, whereas bacteria have ester-linked lipids.
 - Genetic Makeup: Archaea's genetic material is more similar to eukaryotes than to bacteria. ☒☒
-

Q5: What are plasmids and what is their importance?

Answer: Plasmids are small, circular DNA molecules found in prokaryotes, separate from chromosomal DNA. They often carry genes that provide advantages, such as antibiotic resistance, and can be transferred between bacteria through conjugation, aiding in genetic diversity.

Q6: What is the function of endospores?

Answer: Endospores are highly resistant structures formed by some bacteria to survive extreme environmental conditions, such as heat, radiation, and desiccation. They ensure the bacterium's survival in adverse conditions. ❓❓

Q7: What do you mean by genetic recombination?

Answer: Genetic recombination in prokaryotes refers to the process where genetic material is exchanged between different bacterial cells, leading to genetic diversity. This can occur through transformation, transduction, or conjugation. ❓❓

Q8: Why are the bacteria called nutrient recyclers?

Answer: Bacteria are termed nutrient recyclers because they decompose dead organisms and organic waste, breaking them down into simpler substances that can be reused by other living organisms in the ecosystem. ❓❓

Q9: Discuss the role of radiation in controlling bacterial growth.

Answer: Radiation, particularly UV and ionizing radiation, can damage bacterial DNA, leading to mutations or cell death. This property makes radiation effective in sterilizing medical equipment, food preservation, and controlling bacterial growth. ❓❓