Name : _____ Date : _____ Time : Start [ ] End [ ] Marks : 100

NEET | Class XI

BIOLOGY

DPP | B | 004

Instructions :

- DPP contains 25 topicwise questions
- Each question has four options out of which only one option is correct.
- Each question carries 4 marks.
- Mark the correct answer in the OMR Sheet given at the end of the DPP.
- For every incorrect answer deduct 1 mark.

Chapter 2 : Biological Classification

Topic : Kingdom Monera

1. Which of the following are found in extreme saline conditions?
(a) Eubacteria (b) Cyanobacteria
(c) Mycobacteria (d) Archaebacteria

2. Archaebacteria differ from eubacteria in
(a) cell membrane structure (b) mode of nutrition
(c) cell shape (d) mode of reproduction.

3. The term 'glycocalyx' is used for
(a) a layer present between cell wall and membrane of bacteria
(b) cell wall of bacteria
(c) bacterial cell glyco-engineered to possess N-glycosylated proteins
(d) a layer surrounding the cell wall of bacteria.

4. Which of the following is not an advantage of a capsule in a bacterium?
(a) It protects the bacterium from desiccation.
(b) It provides means of locomotion.
(c) It allows bacterium to "hide" from host's immune system.
(d) It allows the bacterium to attach to the surface.

5. The most abundant prokaryotes helpful to humans in making curd from milk and in production of antibiotics are the ones categorised as
(a) cyanobacteria (b) archaebacteria
(c) chemosynthetic autotrophs (d) heterotrophic bacteria.

6. Which among the following are the smallest living cells, known without a definite cell wall, pathogenic to plants as well as animals and can survive without oxygen?
(a) *Pseudomonas* (b) Mycoplasma
(c) *Nostoc* (d) *Bacillus*

7. The bacteria forming blooms in polluted water bodies are nutritionally
(a) Photosynthetic autotrophs
(b) Chemosynthetic autotrophs
(c) Heterotrophs
(d) Saprophytic

8. Which bacteria oxidise various inorganic substances such as nitrates, nitrites and ammonia and use the released energy for their ATP production?
(a) Archaebacteria
(b) Photosynthetic autotrophs
(c) Chemosynthetic autotrophs
(d) Heterotroph

9. Oxygenic photosynthesis takes place in
(a) *Nostoc* (b) *Anabaena*
(c) Cyanobacteria (d) All of the above

10. Identify the accurate explanation of mesosome. It is
(a) a specialised structure of prokaryotic cell formed by extension of plasma membrane into the cytoplasm
(b) the middle layer of the prokaryotic cell wall
(c) the organelle of eukaryotic cell which helps in lipid synthesis
(d) the middle layer of eukaryotic cell wall.

11. Which of the following characters belongs to the Kingdom Monera?
(a) Eukaryotic
(b) Heterotrophic
(c) Presence of nuclear membrane
(d) Presence of cell wall made of cellulose

12. Of the following statements which are not relevant to Archaebacteria?
A. They live in some of the most harsh habitats.
B. They are present in the gut of several ruminant animals.
C. They are characterised by the presence of a rigid cellulosic cell wall.
D. They include mycoplasma.
E. They are also referred to as blue-green algae.
(a) A, B and C (b) A, C and E
(c) C, D and E (d) A, C and D

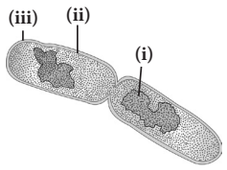
13. Match the organisms in column-I with habitats in column-II.

Column-I	Column-II
A. Halophiles	(i) Hot springs
B. Thermoacidophiles	(ii) Aquatic environment
C. Methanogens	(iii) Guts of ruminants
D. Cyanobacteria	(iv) Salty area

Select the correct answer from the options given below.
(a) A-(iv), B-(i), C-(iii), D-(ii)
(b) A-(i), B-(ii), C-(iii), D-(iv)
(c) A-(iii), B-(iv), C-(ii), D-(i)
(d) A-(ii), B-(iv), C-(iii), D-(i)

14. *Thermococcus, Methanococcus* and *Methanobacterium* exemplify
(a) bacteria whose DNA is relaxed or supercoiled but which have a cytoskeleton as well as mitochondria
(b) bacteria that contain a cytoskeleton and ribosomes and endoplasmic reticulum
(c) archaebacteria that contain protein homologous to eukaryotic core histones
(d) archaebacteria that lack any histones resembling those found in eukaryotes but whose DNA is supercoiled.

15. Recognise the figure and find the suitable matching.



(a) (i)-Nucleus,(ii)-cell membrane, (iii)-capsule
(b) (i)-DNA, (ii)-cell membrane, (iii)-cell wall
(c) (i)-DNA, (ii)-cell wall, (iii)-capsule
(d) (i)-Nucleus, (ii)-cell membrane, (iii)-cell wall

16. I. Unicellular, colonial, filamentous, marine or terrestrial forms.
II. The colonies are surrounded by a gelatinous sheath.
III. Some can fix atmospheric nitrogen in specialised cells called heterocysts.
IV. They often form blooms in water bodies.
All these characters are seen in
(a) Archaebacteria (b) Cyanobacteria
(c) Chrysophytes (d) Dinoflagellates

17. DNA replication in bacteria occurs
(a) within nucleolus (b) prior to fission
(c) just before transcription (d) during S phase.

18. Which of the following bacterium is associated with the roots of legumes?
(a) *Nostoc* (b) *Rhizobium*
(c) *Clostridium* (d) *Spirogyra*

19. Choose the wrong statements regarding bacterial cell.
A. Glycocalyx is the outermost envelope in bacteria.
B. The glycocalyx could be a loose sheath called capsule.
C. The glycocalyx may be thick and tough called slime layer.
D. A special structure formed by the plasma membrane is called mesosome.
E. Small bristle like fibres sprouting out of the cell are called fimbriae.
(a) A and C are wrong. (b) A and B are wrong.
(c) B and C are wrong. (d) A and D are wrong.

20. Which of the following statements is not true for *Nostoc*?
(a) It is prokaryotic. (b) It is autotrophic.
(c) It is filamentous. (d) It is macroscopic.

21. From the features given below, how many are associated with the most primitive bacterial group?

Associated with eukaryotes, Fuel production, Heterotrophic nutrition only, Survival in harsh habitats, May be photosynthetic.

(a) 2 (b) 3 (c) 4 (d) 1

22. A bacterium divides after every 35 minutes. If a culture containing 10^5 cells per mL is grown, then cell concentration per mL after 175 minutes will be
(a) 175×10^5 (b) 125×10^5
(c) 48×10^5 (d) 32×10^5.

23. Select the incorrect statement.
(a) Chemosynthetic autotrophic bacteria play a great role in recycling nutrients like nitrogen, phosphorous, iron and sulphur.
(b) Though the bacterial structure is very simple, they are very complex in behaviour.
(c) Autotrophic bacteria synthesise their food from organic substrates.
(d) Majority of the heterotrophic bacteria are important decomposers.

24. Pigment containing membranous extensions in some cyanobacteria are
(a) pneumatophores (b) chromatophores
(c) heterocysts (d) basal bodies.

25. The members of monera have cell wall made up of polysaccharide and amino acid. Which member of monera lack cell wall?
(a) Slime mould (b) Mycoplasma
(c) Both (a) and (b) (d) Archaebacteria

OMR SHEET

Use HB pencil only and darken each circle completely.
Mark only one choice for each question as indicated.

Correct marking ● ⓑ ⓒ ⓓ
Wrong marking ⊗ ⊘ ◑ ⊙

1. ⓐ ⓑ ⓒ ⓓ	4. ⓐ ⓑ ⓒ ⓓ	7. ⓐ ⓑ ⓒ ⓓ	10. ⓐ ⓑ ⓒ ⓓ	13. ⓐ ⓑ ⓒ ⓓ	16. ⓐ ⓑ ⓒ ⓓ	19. ⓐ ⓑ ⓒ ⓓ	22. ⓐ ⓑ ⓒ ⓓ	25. ⓐ ⓑ ⓒ ⓓ
2. ⓐ ⓑ ⓒ ⓓ	5. ⓐ ⓑ ⓒ ⓓ	8. ⓐ ⓑ ⓒ ⓓ	11. ⓐ ⓑ ⓒ ⓓ	14. ⓐ ⓑ ⓒ ⓓ	17. ⓐ ⓑ ⓒ ⓓ	20. ⓐ ⓑ ⓒ ⓓ	23. ⓐ ⓑ ⓒ ⓓ	
3. ⓐ ⓑ ⓒ ⓓ	6. ⓐ ⓑ ⓒ ⓓ	9. ⓐ ⓑ ⓒ ⓓ	12. ⓐ ⓑ ⓒ ⓓ	15. ⓐ ⓑ ⓒ ⓓ	18. ⓐ ⓑ ⓒ ⓓ	21. ⓐ ⓑ ⓒ ⓓ	24. ⓐ ⓑ ⓒ ⓓ	

RESULT B | 004 - BIOLOGY

Total Questions	25	Total Marks	100
Attempted		Correct	
Incorrect		Net Score	

Net Score = (Correct × 4) – (Incorrect × 1) = ...
Percentage Score = ...

Check your learning! If your score is

> 90%	EXCELLENT WORK !
90-75%	GOOD WORK !
74-60%	SATISFACTORY !
< 60%	NOT SATISFACTORY!