

Test Paper : II	Test Booklet Serial No. : _____								
Test Subject : LIFE SCIENCE	OMR Sheet No. : _____								
Test Subject Code : <b>K-2814</b>	Roll No. <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table> (Figures as per admission card)								

<b>Name &amp; Signature of Invigilator/s</b>	
Signature: _____	Signature: _____
Name : _____	Name : _____
<b>Paper : II</b>	
<b>Subject : LIFE SCIENCE</b>	
Time : 1 Hour 15 Minutes	Maximum Marks : 100

Number of Pages in this Booklet : 8 Number of Questions in this Booklet : 50

<p style="text-align: center;"><b>ಅಭ್ಯರ್ಥಿಗಳಿಗೆ ಸೂಚನೆಗಳು</b></p> <ol style="list-style-type: none"> <li>ಈ ಪುಟದ ಮೇಲ್ಭಾಗದಲ್ಲಿ ಒದಗಿಸಿದ ಸ್ಥಳದಲ್ಲಿ ನಿಮ್ಮ ರೋಲ್ ನಂಬರ್‌ನ್ನು ಬರೆಯಿರಿ.</li> <li>ಈ ಪತ್ರಿಕೆಯು ಬಹು ಆಯ್ಕೆ ವಿಧದ ಐವತ್ತು ಪ್ರಶ್ನೆಗಳನ್ನು ಒಳಗೊಂಡಿದೆ.</li> <li>ಪರಿಷ್ಕರಿಸಿದ ಪ್ರಾರಂಭದಲ್ಲಿ ಪ್ರಶ್ನೆಪುಸ್ತಕವನ್ನು ನಿಮಗೇನಿಡಲಾಗುವುದು. ಮೊದಲ 5 ನಿಮಿಷಗಳಲ್ಲಿ ನೀವು ಪುಸ್ತಕವನ್ನು ತೆರೆಯಲು ಮತ್ತು ಕೆಳಗಿನಂತೆ ಕಡ್ಡಾಯವಾಗಿ ಪರಿಷ್ಕರಿಸಲು ಕೋರಲಾಗಿದೆ.             <ol style="list-style-type: none"> <li>ಪ್ರಶ್ನೆಪುಸ್ತಕಕ್ಕೆ ಪ್ರವೇಶವನ್ನು ತೆರೆದಂತಹಂತೆ, ಈ ಹೊದಿಕೆ ಪುಟದ ಅಂಚಿನ ಮೇಲಿರುವ ಪೇಪರ್ ಸೀಲನ್ನು ಹರಿಯಿರಿ. ಸ್ವಿಚ್ ಸೀಲ್ ಇಲ್ಲದ ಪ್ರಶ್ನೆಪುಸ್ತಕ ಸ್ವೀಕರಿಸಬೇಡಿ. ತೆರೆದ ಪುಸ್ತಕವನ್ನು ಸ್ವೀಕರಿಸಬೇಡಿ.</li> <li>ಪುಸ್ತಕದಲ್ಲಿನ ಪ್ರಶ್ನೆಗಳ ಸಂಖ್ಯೆ ಮತ್ತು ಪುಟಗಳ ಸಂಖ್ಯೆಯನ್ನು ಮುಖಪುಟದ ಮೇಲೆ ಮುದ್ರಿಸಿದ ಮಾಹಿತಿಯೊಂದಿಗೆ ತಾಳಿ ನೋಡಿ. ಪುಟಗಳು/ಪ್ರಶ್ನೆಗಳು ಕಾಣೆಯಾದ, ಅಥವಾ ದ್ವಿಪ್ರತಿ ಅಥವಾ ಅನುಕ್ರಮವಾಗಿಲ್ಲದ ಅಥವಾ ಇತರ ಯಾವುದೇ ವ್ಯತ್ಯಾಸದ ದೋಷಪೂರಿತ ಪುಸ್ತಕವನ್ನು ಕೂಡಲೇ ನಿರಾಕರಿಸಿ ಅದನ್ನು ಬಿಟ್ಟು, ಸಂವಿಧಾನದ ಸರಿ ಇರುವ ಪುಸ್ತಕಕ್ಕೆ ಬದಲಾಯಿಸಿಕೊಳ್ಳಬೇಕು. ಆ ಬಳಿಕ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯನ್ನು ಬದಲಾಯಿಸಲಾಗುವುದಿಲ್ಲ, ಯಾವುದೇ ಹೆಚ್ಚು ಸಮಯವನ್ನೂ ಕೊಡಲಾಗುವುದಿಲ್ಲ.</li> </ol> </li> <li>ಪ್ರತಿಯೊಂದು ಪ್ರಶ್ನೆಗೂ (A), (B), (C) ಮತ್ತು (D) ಎಂದು ಗುರುತಿಸಿದ ನಾಲ್ಕು ಪರ್ಯಾಯ ಉತ್ತರಗಳಿವೆ. ನೀವು ಪ್ರಶ್ನೆಯ ಎದುರು ಸರಿಯಾದ ಉತ್ತರದ ಮೇಲೆ, ಕೆಳಗೆ ಕಾಣಿಸಿದಂತೆ ಅಂಡಾಕೃತಿಯನ್ನು ಕೆಪ್ಪಾಡಿಸಬೇಕು. ಉದಾಹರಣೆ: <input type="radio"/> (A) <input type="radio"/> (B) <input checked="" type="radio"/> (C) <input type="radio"/> (D) (C) ಸರಿಯಾದ ಉತ್ತರವಾಗಿದ್ದಾಗ.</li> <li>ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ I ರಲ್ಲಿ ಕೊಟ್ಟಿರುವ OMR ಉತ್ತರ ಹಾಳೆಯಲ್ಲಿ, ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ II ಮತ್ತು ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ III ರಲ್ಲಿ ಇರುವ ಪ್ರಶ್ನೆಗಳಿಗೆ ನಿಮ್ಮ ಉತ್ತರಗಳನ್ನು ಸೂಚಿಸತಕ್ಕದ್ದು OMR ಉತ್ತರ ಹಾಳೆಯಲ್ಲಿ ಅಂಡಾಕೃತಿಯಲ್ಲದ ಬೇರೆ ಯಾವುದೇ ಸ್ಥಳದಲ್ಲಿ ಉತ್ತರವನ್ನು ಗುರುತಿಸಿದರೆ, ಅದರ ಮೌಲ್ಯಮಾಪನ ಮಾಡಲಾಗುವುದಿಲ್ಲ.</li> <li>OMR ಉತ್ತರ ಹಾಳೆಯಲ್ಲಿ ಕೊಟ್ಟ ಸೂಚನೆಗಳನ್ನು ಜಾಗರೂಕತೆಯಿಂದ ಓದಿ.</li> <li>ಎಲ್ಲಾ ಕೆಲಸವನ್ನು ಪುಸ್ತಕವು ಕೊನೆಯಲ್ಲಿ ಮಾಡತಕ್ಕದ್ದು.</li> <li>ನಿಮ್ಮ ಗುರುತನ್ನು ಬಹಿರಂಗಪಡಿಸಬಹುದಾದ ನಿಮ್ಮ ಹೆಸರು ಅಥವಾ ಯಾವುದೇ ಚಿಹ್ನೆಯನ್ನು ಸಂಗ್ರಹಿಸಿದ ಸ್ಥಳ ಹೊರತು ಪಡಿಸಿ, OMR ಉತ್ತರ ಹಾಳೆಯ ಯಾವುದೇ ಭಾಗದಲ್ಲಿ ಬರಹ, ನೀವು ಅನರ್ಪಣೆಗೆ ಬಾಧ್ಯರಾಗಿರುತ್ತೀರಿ.</li> <li>ಪರಿಷ್ಕರಿಸಿದ ಮುಂದಿನಂತೆ, ಕಡ್ಡಾಯವಾಗಿ OMR ಉತ್ತರ ಹಾಳೆಯನ್ನು ಸಂವಿಧಾನದ ಸರಿ ನೀವು ಹಿಂತಿರುಗಿಸಬೇಕು ಮತ್ತು ಪರಿಷ್ಕರಿಸಿದ OMR ನ್ನು ನಿಮ್ಮೊಂದಿಗೆ ಕೊಂಡೊಯ್ಯಿ ಕೊಡಬೇಡಿ.</li> <li>ಪರಿಷ್ಕರಿಸಿದ ನಂತರ, ಪರಿಷ್ಕರಿಸಿದ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯನ್ನು ಮತ್ತು ನಕಲು OMR ಉತ್ತರ ಹಾಳೆಯನ್ನು ನಿಮ್ಮೊಂದಿಗೆ ತೆಗೆದುಕೊಂಡು ಹೋಗಬಹುದು.</li> <li>ನೀಲಿ/ಕಪ್ಪು ಬಾಲ್ ಪಾಯಿಂಟ್ ಪೆನ್ ಮಾತ್ರವೇ ಉಪಯೋಗಿಸಿ.</li> <li>ಕ್ಯಾಲ್ಕುಲೇಟರ್ ಅಥವಾ ಲಾಗ್ ಟೇಬಲ್ ಇತ್ಯಾದಿಯ ಉಪಯೋಗವನ್ನು ನಿಷೇಧಿಸಲಾಗಿದೆ.</li> <li>ಸರಿ ಅಲ್ಲದ ಉತ್ತರಗಳಿಗೆ ಋಣ ಅಂಕ ಇರುವುದಿಲ್ಲ.</li> </ol>	<p style="text-align: center;"><b>Instructions for the Candidates</b></p> <ol style="list-style-type: none"> <li>Write your roll number in the space provided on the top of this page.</li> <li>This paper consists of fifty multiple-choice type of questions.</li> <li>At the commencement of examination, the question booklet will be given to you. In the first 5 minutes, you are requested to open the booklet and compulsorily examine it as below :             <ol style="list-style-type: none"> <li>To have access to the Question Booklet, tear off the paper seal on the edge of this cover page. Do not accept a booklet without sticker-seal and do not accept an open booklet.</li> <li><b>Tally the number of pages and number of questions in the booklet with the information printed on the cover page. Faulty booklets due to pages/questions missing or duplicate or not in serial order or any other discrepancy should be got replaced immediately by a correct booklet from the invigilator within the period of 5 minutes. Afterwards, neither the Question Booklet will be replaced nor any extra time will be given.</b></li> </ol> </li> <li>Each item has four alternative responses marked (A), (B), (C) and (D). You have to darken the oval as indicated below on the correct response against each item. <b>Example :</b> <input type="radio"/> (A) <input type="radio"/> (B) <input checked="" type="radio"/> (C) <input type="radio"/> (D) where (C) is the correct response.</li> <li>Your responses to the questions are to be indicated in the <b>OMR Sheet kept inside the Paper I Booklet only</b>. If you mark at any place other than in the ovals in the Answer Sheet, it will not be evaluated.</li> <li>Read the instructions given in OMR carefully.</li> <li>Rough Work is to be done in the end of this booklet.</li> <li>If you write your name or put any mark on any part of the OMR Answer Sheet, except for the space allotted for the relevant entries, which may disclose your identity, you will render yourself liable to disqualification.</li> <li>You have to return the test OMR Answer Sheet to the invigilators at the end of the examination compulsorily and must NOT carry it with you outside the Examination Hall.</li> <li>You can take away question booklet and carbon copy of OMR Answer Sheet soon after the examination.</li> <li><b>Use only Blue/Black Ball point pen.</b></li> <li><b>Use of any calculator or log table etc., is prohibited.</b></li> <li><b>There is no negative marks for incorrect answers.</b></li> </ol>
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**LIFE SCIENCE**  
**Paper – II**

**Note :** This paper contains **fifty (50)** objective type questions. **Each** question carries **two (2)** marks. **All** questions are **compulsory**.

1. The bond formed by sharing of electrons between two atoms is called  
(A) Electrovalent bond  
(B) Coordinate bond  
(C) Covalent bond  
(D) Ionic bond
2. Which of the following enzyme causes DNA strand separation during replication ?  
(A) Polymerase  
(B) Helical  
(C) Ligase  
(D) Nuclease
3. The reversal of the gene order which may result when 2 breaks occur in the same chromosome is called  
(A) Inversion  
(B) Duplication  
(C) Translocation  
(D) Deletion
4. Which of the following sequences correctly describes the cell cycle phases ?  
(A)  $G_1 \rightarrow G_2 \rightarrow S \rightarrow G_0 \rightarrow$  mitosis  
(B)  $S \rightarrow G_2 \rightarrow$  mitosis  $\rightarrow G_1 \rightarrow G_0$   
(C)  $G_0 \rightarrow G_1 \rightarrow S \rightarrow G_2 \rightarrow$  mitosis  
(D) Mitosis  $\rightarrow G_1 \rightarrow G_0 \rightarrow S \rightarrow G_2$
5. In which type of cleavage the egg or ovum is not completely divided into blastomeres ?  
(A) Holoblastic cleavage  
(B) Unequal holoblastic cleavage  
(C) Discoidal meroblastic cleavage  
(D) Meroblastic cleavage
6. Cancers arising from epithelial cells is called  
(A) Adenoma  
(B) Carcinoma  
(C) Sarcoma  
(D) Leukemia
7. "Vermiform appendix" is part of which of the following ?  
(A) Alimentary canal  
(B) Vascular system  
(C) Nervous system  
(D) Reproductive system
8. Respiratory system of cockroach is  
(A) Integument  
(B) Lungs  
(C) Gills  
(D) Trachea



9. Which hormone regulates the amount of urine by controlling the rate of water absorption in nephron tubules ?
- (A) Oxytocin  
(B) Antidiuretic hormone (ADH)  
(C) Luteotropic hormone (LTH)  
(D) Thyronine
10. In which of the following technique radionuclides are used ?
- (A) PET Scan  
(B) CT Scan  
(C) CAT Scan  
(D) Ultrasonography
11. Which of the following could not be a correlation coefficient ?
- (A) 0  
(B) -0.3  
(C) 10  
(D) 1
12. Which of the following is arranged in correct sequence for systematic classification ?
- (A) Kingdom, phylum, family, order, genus, class, species  
(B) Kingdom, phylum, class, order, family, genus, species  
(C) Kingdom, order, phylum, genus, class, family, species  
(D) Kingdom, order, phylum, family, class, genus, species
13. Formation of diverse species from a single ancestor is called
- (A) Mutualism  
(B) Commensalism  
(C) Speciation  
(D) Adaptive radiation
14. Life on the earth originated about
- (A) 1.5 billion years ago  
(B) 2.5 billion years ago  
(C) 3.5 billion years ago  
(D) 4.5 billion years ago
15. Diversity encompass
- (A) Species richness  
(B) Species frequency of occurrence  
(C) Relative abundance  
(D) Both (A) and (B)
16. The great barrier reef exists nearer to
- (A) Australia  
(B) New Zealand  
(C) Malaysia  
(D) Indonesia
17. The term 'halophilic' refers to
- (A) Temperature tolerance  
(B) Salinity tolerance  
(C) Tolerance to low water activity  
(D) Tolerance to acidic pH



18. The isotope used in the treatment of Grave's disease is
- (A)  $\text{Co}^{60}$
  - (B)  $\text{p}^{32}$
  - (C)  $\text{g}^{131}$
  - (D)  $\text{C}^{14}$
19. In a sample of DNA, analysis of its base composition showed that the proportion of A + G was not equal to T + C. Hence, this DNA is
- (A) Double stranded DNA
  - (B) Single stranded DNA
  - (C) Mutated DNA
  - (D) DNA from a cancer cell
20. Hydrogen bond can be formed with the following except
- (A)  $\text{O} - \text{H} \dots \text{O}$
  - (B)  $\text{O} - \text{H} \dots \text{N}$
  - (C)  $\text{O} - \text{H} \dots \text{S}$
  - (D)  $\text{N} - \text{H} \dots \text{N}$
21. The expression of tryp operon in E. Coli is regulated in part by the availability of tryptophan. This regulation is called
- (A) Attenuation
  - (B) Translational read-through
  - (C) Antitermination
  - (D) Nonsense suppression
22. The rate constant of a reaction at 293°K was found to be  $3.2 \times 10^{-3}/\text{sec}$ . At 303°K it is likely to be
- (A)  $3.2 \times 10^{-3}/\text{sec}$
  - (B)  $6.4 \times 10^{-3}/\text{sec}$
  - (C)  $1.6 \times 10^{-3}/\text{sec}$
  - (D)  $6.4 \times 10^{-6}/\text{sec}$
23. Ramachandran plot
- (A) Represents sterically allowed conformation of polypeptide
  - (B) Can give orientation of cofactors in proteins
  - (C) Can identify nonprotein amino acids if present in proteins
  - (D) Presence of metal ions
24. Peptidyl transferase reaction is catalysed by
- (A) Ribosomal proteins
  - (B) Ribosome
  - (C) Ribosomal RNA
  - (D) t-RNA
25. The enzyme responsible for generation of  $\text{IP}_3$  in cells is
- (A) Protein kinase C
  - (B) Phospholipase C
  - (C) Phospholipase  $\text{A}_2$
  - (D) Sphingomyelinase



26. The complementarity determining region of an immunoglobulin molecule is located in
- (A) VH domain
  - (B) CL domain
  - (C) VH and CH domains
  - (D) VH and VL domains
27. One of the X chromosomes in human females undergoes \_\_\_\_\_ type of heterochromatilisation.
- (A) Constitutive
  - (B) Facultative
  - (C) Defective
  - (D) Variable
28. pH of lysozyme is maintained by
- (A) Proton pump
  - (B) Sodium pump
  - (C) Calcium pump
  - (D) Chloride pump
29. Replicative transposition is characterized by
- (A) Movement of transposon from one cell to another
  - (B) Replication of repeated DNA sequences
  - (C) Excision of transposon from one location and its subsequent insertion at a different location
  - (D) The original sequence remains in place and the new sequence is inserted at a different location
30. Major nucleotide repeats of a telomere is
- (A) Adenine rich repeats
  - (B) Guanine rich repeats
  - (C) Thymine rich repeats
  - (D) Uracil rich repeats
31. Functional property of m-RNA is
- (A) Transcription
  - (B) Recombination
  - (C) Replication
  - (D) Translation
32. Calcium independent cell surface adhesion molecule is
- (A) Cadherins
  - (B) Selections
  - (C) Ig-superfamily
  - (D) Integrins
33. On removing thyroid from the tadpole it will
- (A) Remain as tadpole
  - (B) It will grow into giant frog
  - (C) Die immediately
  - (D) Grow into small frog
34. The functional unit of vertebrate excretory system is
- (A) Kidney
  - (B) Urinary bladder
  - (C) Neuron
  - (D) Nephron



35. Master of master gland is  
(A) Hypothalamus  
(B) Pituitary  
(C) Thymus  
(D) Thyroid
36. Which will be the genotypic ratio of the cross between Bb and bb ?  
(A) 1 : 2 : 1  
(B) 3 : 1  
(C) 1 : 1  
(D) 1 : 1 : 1
37. The correct number of human chromosome was reported by  
(A) Painter  
(B) Boveri and Sutton  
(C) Wilson  
(D) Tjio and Levan
38. Mutation which replaces purine to purine and pyrimidine to pyrimidine is  
(A) Transition  
(B) Transversion  
(C) Translocation  
(D) Frameshift mutation
39. The totality of genes of a given population is called  
(A) Gene frequency  
(B) Gene pool  
(C) Gene family  
(D) Genome
40. Darwinian fitness of an organism is the measure of  
(A) Survival  
(B) Physical fitness  
(C) Adaptation to the environment  
(D) Number of viable offspring
41. Which of the following are sympatric species ?  
(A) Different species living in the same place  
(B) Same species living in different places  
(C) Morphologically different species  
(D) Morphologically same species
42. Which one of the following species is listed in the Red Data Book of India ?  
(A) Rauwolfia suspentina  
(B) Santalum album  
(C) Pterocarpus santalinus  
(D) Ochreinauclea missionis
43. The State having a largest area of forest cover in India is  
(A) Arunachal Pradesh  
(B) Madhya Pradesh  
(C) Assam  
(D) Haryana



44. Climax community is in the state of
- (A) Equilibrium
  - (B) Nonequilibrium
  - (C) Abrupt change
  - (D) Constant change
45. Which of the following traits do archaea and bacteria share ?
- I) Composition of cell wall
  - II) Presence of plasma membrane
  - III) Lack of a nuclear envelope
  - IV) Identical r-RNA sequence
- (A) I correct
  - (B) III correct
  - (C) I and III are correct
  - (D) II and III are correct
46. Which of the following is a false statement ?
- (A) 'A' blood group individuals have 'B' antibodies
  - (B) 'B' blood group individuals have 'A' antibodies
  - (C) 'AB' blood group individuals have A antigen and B antibody
  - (D) 'O' blood group individuals have both antibodies
47. When pea and rose comb chickens are crossed what is the comb phenotype in  $F_1$  individual ?
- (A) Pea comb
  - (B) Rose comb
  - (C) Single comb
  - (D) Walnut comb
48. Who coined the term "Prebiotic soup" ?
- (A) J. B. Hooker
  - (B) J. B. S. Haldane
  - (C) S. W. Fox
  - (D) A. Oparin
49. In which of the following provirus DNA is formed in viral life cycle ?
- (A)  $\phi$ X174
  - (B) Polio Virus
  - (C) Rous Sarcoma Virus
  - (D) Influenza Virus
50. The oldest microfossil so far of age 3.5 billion years ago was
- (A) Cyanobacteria
  - (B) Eobionts
  - (C) Coacervates
  - (D) Microspheres



Total Number of Pages : 8

ಚಿತ್ರ ಬರಹಕ್ಕಾಗಿ ಸ್ಥಳ  
Space for Rough Work