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**Virendra Singh**  
Founder, Vedemy ( Ph. D , IIT BHU )



बडा लालपुर, चांदमारी, सिंधोरा रोड, वाराणसी

1. The most abundant element found in Earth's mass is:  
(a) Ca  
(b) Fe  
(c) Al  
(d) Mg
2. Which one of the following is superfluid?  
(a)  $^4\text{He}$   
(b)  $^5\text{He}$   
(c)  $^5\text{Li}$   
(d)  $^4\text{Li}$
3. A camera setting that allows the camera to choose the CORRECT focus distance for you:  
(a) Autofocus  
(b) Zoom Lens  
(c) Framing  
(d) Aperture
4. The effect of splitting a spectral line into several components in the presence of a static magnetic field is called:  
(a) Stark Effect  
(b) Zeeman Effect  
(c) Planck Phenomenon  
(d) Bohr phenomenon
5. Most common blood group among Indian population:  
(a) O+  
(b) A+  
(c) B+  
(d) AB+
6. An instrument used to measure humidity is:  
(a) Anemometer  
(b) Hygrometer  
(c) Thermometer  
(d) Pyrheliometer
7. Which gas is safe and effective extinguisher for all confined fires:  
(a) Nitrogen dioxide  
(b) Carbon dioxide  
(c) Sulphur dioxide  
(d) Nitrous Oxide
8. The country that has regulations relating to the trans fats in foodstuffs is:  
(a) India  
(b) South Africa  
(c) Australia  
(d) United States of America
9. What do you mean by LTE in relation to telecommunication:  
(a) Long term evolution.  
(b) Light term evolution.  
(c) Long term enhancement.  
(d) Light term enhancement.
10. Rain gauge is the instrument for determining:  
(a) The depth of precipitation in millimetre over one- meter square area.  
(b) The depth of precipitation in centimetre over one-meter square area.  
(c) The depth of precipitation in millimetre over one- inch square area.  
(d) The depth of precipitation in inches over one- millimetre square area 20.
11. The reason for choosing mice for the science experiments are all **EXCEPT**:  
(a) They are small  
(b) They have long life span

- (c) They don't cause damage when provoked  
(d) We share many of our genes with mice
12. Biological clock refers to all **EXCEPT**:
- (a) Ageing
  - (b) Death clock
  - (c) Circadian rhythm
  - (d) Molecular clock
13. If an engine has a capacity of 1000cc than the capacity of that engine is:
- (a) One millilitre
  - (b) One Litre
  - (c) Two Litre
  - (d) Two millilitres
14. The type of Laser used in Laser Printers?
- (a) Semiconductor laser
  - (b) Excimer Laser
  - (c) Dye Laser
  - (d) Gas Laser
15. Aluminium is getting popular worldwide today as a "Green Metal". Which among the following properties of Aluminium makes it a Green Metal?
- (a) Aluminium has been providing a replacement of wood for saving forests and contributes in environment protection.
  - (b) Aluminium is a light metal and it is resistant to corrosion.
  - (c) Aluminium has high rate of recycling and it can be re-used repeatedly without its quality deteriorating.
  - (d) The lands after the Bauxite mining can be restored very quickly and easily.
16. The WHO specified provisional guideline limit for Arsenic concentrations in potable water, is:
- (a) 1  $\mu\text{g/L}$
  - (b) 10  $\mu\text{g/L}$
  - (c) 100  $\mu\text{g/L}$
  - (d) 0.1  $\mu\text{g/L}$
17. The Indian government generally spends about % of GDP on healthcare:
- (a) 12.2
  - (b) 8.2
  - (c) 4.2
  - (d) 1.2
18. The women scientist who won Nobel prize in 2015 for her discovery on a novel therapy against malaria is:
- (a) Youyou Tu
  - (b) Svetlana Alexievich
  - (c) Malala Yousafzai
  - (d) Alice Munro
19. International day for preservation of the Ozone layer is:
- (a) 16 September
  - (b) 2 October
  - (c) 31 October
  - (d) 27 November
20. The variance of a data set is 2.25. If we multiply each data value by 2 then the standard deviation will be:
- (a) 1.5
  - (b) 3.5
  - (c) 3
  - (d) 4.5
21. In a normally distributed population, number of the observations falling within the range Mean + S.D. is approximately:
- (a) 50%

- (b) 68%  
(c) 87%  
(d) 95%
22. For comparing variability in different parameters recorded in different units, the most appropriate measure is:  
(a) Range.  
(b) Mean Deviation.  
(c) Standard Deviation.  
(d) Coefficient of Variation.
23. Geometric mean of 3, 4 and 18 is:  
(a) 8.33  
(b) 8.0  
(c) 7.5  
(d) 6.0
24. If we wish to study the mutual interdependence between systolic blood pressure and blood sugar in a sample of 25 patients, then the type of analysis required to be performed is:  
(a) Correlation Analysis  
(b) Regression Analysis  
(c) Salt Analysis  
(d) Analysis of Variance
25. The most appropriate measure of central tendency when data are contaminated by outliers is:  
(a) Mode  
(b) Arithmetic mean  
(c) Geometric mean  
(d) Median
26. If a distribution is negatively skewed, then:  
(a) Mean = Median = Mode.  
(b) Mean < Median < Mode.  
(c) Mean > Median > Mode.  
(d) Mean < Mode < Median.
27. A random sample of expenditure on 20 patients from PGI and another random sample of expenditure on 25 patients from Fortis Hospital was selected. If our interest was to know whether, on an average, expenditure incurred per patient in the two hospitals was comparable **NOT**, then the appropriate test procedure would be:  
(a) Z-test.  
(b) Paired t-test.  
(c) Unpaired t-test.  
(d) Kendall's Concordance analysis.
28. The mean and median of a data set are 24 and 22, respectively. The mode of the data set will be:  
(a) 23  
(b) 18  
(c) 2  
(d) -2
29. The mean, mode and standard deviation of a data set are 10, 13 and 1.5, respectively. The value of coefficient of skewness is:  
(a) 2  
(b) -3  
(c) 3  
(d) -2
30. The mean, median, mode of a data set is 135, 133 and 130, respectively. The distribution of the data set is:  
(a) symmetric  
(b) Negatively skewed  
(c) Positively skewed  
(d) Normal



31. A pharmaceutical company produces 8% defective tablets. The expected number of non-defective tablets in a batch of 175 tablets is:
- (a) 14
  - (b) 28
  - (c) 161
  - (d) 147
32. An appropriate measure of association between two attributes, each at two levels, is:
- (a) Karl Pearson's correlation coefficient.
  - (b) Spearman's rank correlation coefficient.
  - (c) Kendall's tau coefficient.
  - (d) Yule's coefficient of association.
33. A test of significance to test the independence of two attributes is:
- (a) t-test
  - (b) F-test
  - (c) Z-test
  - (d) Chi-square test
34. A bottle contains 4 underweight, 3 over weight and 5 normal weight tablets. A person draws randomly one tablet from the bottle. The chance of drawn tablet **NOT** being under weight is:
- (a) .67
  - (b) .3
  - (c) .42
  - (d) .58
35. The appropriate measure of dispersion of an open-end class data is:
- (a) Range
  - (b) Mean deviation
  - (c) Quartile deviation
  - (d) Standard deviation
36. ANOVA technique is most appropriate for testing statistical significance of:
- (a) Mean of single random sample.
  - (b) Difference between means of two independent random samples.
  - (c) Difference between means of two paired samples.
  - (d) Difference between means of more than two (independent or related) samples.
37. If p-value of a test-statistic is 0.0023, then our inference would be:
- (a) The findings are statistically non-significant.
  - (b) The findings are significant at 5% probability level.
  - (c) The findings are significant at 1% probability level.
  - (d) The findings are significant at 0.1% probability level.
38. The molecular weight of NaCl is 58. How many mg is in 50 $\mu$ mol of NaCl?
- (a) 290 mg
  - (b) 29 mg
  - (c) 2.9 mg
  - (d) 29 g
39. One of the following diseases is due to protein deficiency:
- (a) Scurvy
  - (b) Marasmus
  - (c) Beriberi
  - (d) Rickets



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बडा लालपूर, चांदमारी, सिंधोरा रोड, वाराणसी

40. Following are the types of active transport through cell membrane **EXCEPT**:

- (a) Sodium -Potassium pump.
- (b) Endocytosis.
- (c) Osmosis.
- (d) Exocytosis.

41. HLA matching is done during:

- (a) Blood transfusion.
- (b) Platelet transfusion.
- (c) Total parenteral nutrition.
- (d) Organ transplantation.

42. All are basic types of melanin **EXCEPT**:

- (a) Eumelanin
- (b) Pheomelanin
- (c) Neuromelanin
- (d) Cystomelanin

43. All are TRUE about Type -2 diabetes mellitus **EXCEPT**:

- (a) It is a genetic disease.
- (b) Disease of life style.
- (c) Caused due to increase in insulin production.
- (d) Caused due to inability of cells to respond to normal levels of insulin.

44. The resolution of human eye is:

- (a) 12 megapixels
- (b) 50 gigapixels
- (c) 576 megapixels
- (d) 500 pixels

45. Haemophilia, an inherited disorder that affects only males is:

- (a) Recessive X-linked
- (b) Dominant X-linked
- (c) Y-linked
- (d) Dominant autosomal

46. Which of the following is non-mutagenic?

- (a) UV
- (b) Acridine
- (c) IR
- (d) X-ray

47. Pregnancy can be terminated medically up to:

- (a) 12 weeks
- (b) 20 weeks
- (c) 18 weeks
- (d) 24 weeks

48. Nosocomial infections are:

- (a) Acquired during the course of hospitalisation.
- (b) Due to vaccination.
- (c) Due to mosquito bite.
- (d) Due to rat bite.

49. Which one of the following is a comma shaped motile bacteria?

- (a) Yersinia pestis
- (b) Brucella melitensis
- (c) Vibrio cholera
- (d) Bacillus Anthracis

50. Which of the following is **NOT** a lichen?

- (a) Lobaria oregano.
- (b) Rhizocarpon geographicum.
- (c) Reindeer moss.



(d) *Cladophialophora bantiana*.

51. Which of the following is a non-natural amino acid?  
(a) Arginine  
(b)  $\beta$ -alanine  
(c) Proline  
(d) Tryptophan
52. Which of the following amino acid found abundantly in collagen protein?  
(a) Lysine  
(b) Alanine  
(c) Glycine  
(d) Leucine
53. Difference between a DNA and RNA:  
(a) Sugar and phosphate.  
(b) Sugar and purines.  
(c) Purines and phosphate.  
(d) Sugar and pyrimidines.
54. Inhibition of succinic dehydrogenase by malonic acid is:  
(a) Non-competitive inhibition.  
(b) Competitive inhibition.  
(c) Un-competitive inhibition.  
(d) Feedback inhibition.
55. Valency of carbon is:  
(a) One  
(b) Two  
(c) Three  
(d) Four
56. Coenzyme A is a derivative of:  
(a) Thiamine  
(b) Riboflavin  
(c) Pantothenate  
(d) Niacin
57. Which of the following reduces oxygen to water?  
(a) Q-cytochrome c reductase.  
(b) ATP synthase.  
(c) TCA cycle.  
(d) Cytochrome c oxidase.
58. What does uncompetitive inhibition in the enzyme-substrate reaction tells us:  
(a) Inhibitor binds already formed enzyme-substrate complex.  
(b) Inhibitor binds to another site than the active site of enzyme.  
(c) Inhibitor competes with the substrate in binding the active site of enzyme.  
(d) Inhibitor does not participate in the enzyme- substrate reaction.
59. Which among the following absorbs more UV radiation at 260 nm?  
(a) Double stranded DNA  
(b) Single stranded DNA  
(c) Single stranded RNA  
(d) Protein complex
60. The main role of an enzyme in a chemical reaction is to:  
(a) Reduce the energy of a reaction.  
(b) Increase the energy of a reaction.  
(c) Reaction goes to completion without changing energy.  
(d) Reduce the substrate binding characteristics.
61. The energy producing groups in the Adenosine triphosphate:



- (a) Purine groups
  - (b) Sugar groups
  - (c) Phosphate groups
  - (d) Nitrogen groups
62. The tertiary structure of protein is governed mainly by the:
- (a) Intramolecular interactions of the side groups of polypeptide chains.
  - (b) Intermolecular interactions of the polypeptide chains.
  - (c) Hydrogen bonding.
  - (d) Vander walls interactions.
63. What Does graph which substrate concentration velocity curve indicate?
- (a) Zero order kinetics.
  - (b) Michelis-Mentons equation.
  - (c) Inverse relation.
  - (d) All of the above.
64. Organic ion necessary in Na-K ATPase:
- (a)  $Mg^{+2}$
  - (b)  $PO_4$
  - (c)  $SO_4^{-2}$
  - (d)  $Ca^{+2}$
65. Alu sequences are:
- (a) Promoter sequence.
  - (b) Repetitive DNA sequence.
  - (c) Transcription initiation sequence.
  - (d) Telomeric sequence.
66. What is cytokinesis?
- (a) Chromosome condensation.
  - (b) Spindle formation.
  - (c) Division of cytoplasm.
  - (d) Separation of chromatids.
67. Water transportation across lipid bilayers of the cell is probably mediated by:
- (a) Hydrotransferrins
  - (b) Aquaporins
  - (c) Hydro porins
  - (d) Aquatransferrins
68. Which of the following is wrong about Hemoglobin?
- (a) It displays quaternary structure.
  - (b) It binds oxygen.
  - (c) It contains Heme moiety.
  - (d) It has proteolytic activity.
69. Acid phosphatase is a marker of:
- (a) Plasma membrane
  - (b) Lysosome
  - (c) Mitochondria
  - (d) Endoplasmic reticulum
70. The cellular organelle with acidic pH:
- (a) Nucleus
  - (b) Mitochondria
  - (c) Golgi complex
  - (d) Lysosomes
71. Many scientists are very interested in studying mitochondrial DNA because it:
- (a) Is only present in vertebrates closely related to humans.
  - (b) Replicates by synthesizing an mRNA that then acts as a DNA polymerase.
  - (c) Contains over 50% of the genes in the human genome.

(d) Mutates rapidly and allows us to study evolution over short time scales.

72. From prenatal life to puberty the primary oocyte remains in:

- (a) Prophase
- (b) Metaphase
- (c) Anaphase
- (d) Telophase

73. The enzyme responsible for the synthesis of RNA primer in eukaryotes:

- (a) DNA polymerase alpha.
- (b) DNA polymerase beta.
- (c) DNA polymerase gamma.
- (d) Topoisomerase.

74. Which of the following **DOES NOT** have phosphate?

- (a) A nucleoside
- (b) A nucleotide
- (c) DNA
- (d) RNA

75. Which of the following is a purine?

- (a) Adenine
- (b) Thymine
- (c) Uracil
- (d) Cytosine

76. 'RNAi' stands for which of the following?

- (a) RNA inducer
- (b) RNA insertion
- (c) RNA interference
- (d) RNA intron

77. Genes which are active all the time in cell are known as:

- (a) Cellular luxury genes
- (b) Metabolic genes
- (c) Housekeeping genes
- (d) Control genes

78. What is the key event that leads to association of a protein with a proteasome?

- (a) Phosphorylation
- (b) Acetylation
- (c) Ubiquitination
- (d) Methylation

79. Transcription is the process:

- (a) By which information is transferred from DNA to the transfer RNA.
- (b) By which information is transferred from RNA to the DNA.
- (c) By which information is transferred from nuclear DNA to the mitochondrial DNA.
- (d) By which information is transferred from DNA to the messenger RNA.

80. Passive immunity is obtained through injecting:

- (a) Antibodies
- (b) Vaccine
- (c) Antibiotic
- (d) Antigen

81. Secondary Immune response is generated due to:

- (a) Naïve B cells
- (b) Naïve T cells
- (c) NK cells
- (d) Memory cells



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82. Which of the following vaccines **DOES NOT** provide life time protection?
- (a) Polio
  - (b) DPT
  - (c) Tetanus
  - (d) Small Pox
83. Newborns
- (a) Receive Maternal B cells.
  - (b) Respond to antigens as good as adults.
  - (c) Have virtually a fully complement of maternal IgG antibodies.
  - (d) Receive IgM antibodies from mother through placental transfer.
84. The blood group with anti-A antibodies and anti-B antibodies is:
- (a) O
  - (b) A
  - (c) AB
  - (d) B
85. What is the term used to describe white blood cell migrating towards bacteria?
- (a) Zeosis
  - (b) Chemotaxis
  - (c) Phototaxis
  - (d) Phagocytosis
86. What is the mechanism that white blood cells used to kill bacteria, fungi and other invading organisms?
- (a) Asphyxiation
  - (b) oxidative activity
  - (c) fright
  - (d) drowning
87. Teratogenesis refers to:
- (a) Breeding turtles.
  - (b) Foetal abnormalities.
  - (c) Keratinization of skin.
  - (d) Treatment of cancer.
88. Drugs that counteract the effects of other drugs, for e.g. in case poisonings, are known as:
- (a) Antibodies
  - (b) Monoclonal antibodies
  - (c) Antidotes
  - (d) Vaccines
89. Toxin which blocks the acetylcholine is:
- (a) Diphtheria toxin
  - (b) Botulinum toxin
  - (c) Staphylococcal toxin
  - (d) Tetanospasmin
90. Surfactant:
- (a) Is commonly deficient in term neonates.
  - (b) Acts like detergent in water.
  - (c) Reduces the amount of negative intrapleural pressure.
  - (d) Increases pulmonary compliance.
91. Sleep center is located in:
- (a) Basal ganglia
  - (b) Hypothalamus
  - (c) Medulla
  - (d) Cerebellum
92. Most active form of vitamin D:
- (a) Vitamin D3
  - (b) Calcitriol
  - (c) Calcefedial



(d) 7-dehydrocholecalciferol

93. Function of the thalamus is:

- (a) Relay centre
- (b) Arousal
- (c) Pain perception
- (d) Pain localisation

94. Angiotensinogen is synthesized in the:

- (a) Liver
- (b) Kidney
- (c) Lungs
- (d) Adrenals

95. The organ maximum consumption per minute:

- (a) Liver
- (b) Heart
- (c) Brain
- (d) Skeletal muscle

96. Total time taken from the beginning of meiosis to the formation of mature spermatozoa is about:

- (a) 64 days
- (b) 74 days
- (c) 65 days
- (d) 75 days

97. Hormone insulin of Pancreas is secreted by:

- (a) Alpha cells
- (b) Pancreatic acinus
- (c) Beta cells
- (d) Gamma cells

98. The primary sex organ in the male is:

- (a) Testes
- (b) Penis
- (c) Seminal vesicles
- (d) Prostate

99. The amino acid involved in the synthesis of nitric oxide is:

- (a) Alanine
- (b) Asparagine
- (c) Aspartic acid
- (d) Arginine

100. Which drug causes Gynecomastia, **EXCEPT?**

- (a) Cimetidine
- (b) Fibrates
- (c) Spironolactone
- (d) Digitalis

101. During photosynthesis, PS II absorbs energy at or below:

- (a) 700nm
- (b) 670nm
- (c) 680nm
- (d) 780nm

102. All have the least abuse liability, **EXCEPT:**

- (a) Caffeine
- (b) Benzodiazepines
- (c) Cocaine
- (d) Aspirin

103. Melanocytes are located in:

- (a) Stratum germinativum
- (b) Stratum corneum
- (c) Stratum lucidum
- (d) Dermis

104. Some oral medications are designed to prevent their dissolution or disintegration in gastric environment. They are known as:

- (a) Enteric-coated formulations
- (b) Sustained-release formulations
- (c) Nano-formulations
- (d) Depot-formulations

105. Serum level of a drug is important to monitor, if patients is on:

- (a) Haloperidol
- (b) Lithium
- (c) Diazepam
- (d) Acetazolamide

106. Which of the anticoagulant?

- (a) Amoxycillin
- (b) Diltiazem
- (c) Heparin
- (d) Epinephrine

107. Which of the chromosomal abnormality is responsible for Edward's syndrome?

- (a) Trisomy-18
- (b) Trisomy-21
- (c) Trisomy-8
- (d) Trisomy-13

108. A cross in which parents differ in a single pair of contrasting character is called:

- (a) Tetra hybrid cross
- (b) Dihybrid cross
- (c) Monohybrid cross
- (d) Trihybrid cross

109. Phenotype of an organism is a result of:

- (a) Mutations and linkages.
- (b) Environmental changes and sexual dimorphism.
- (c) Genotype and environmental interactions.
- (d) Cytoplasmic effects and nutrition.

110. The total number of phalanges present in each hand are:

- (a) 12
- (b) 15
- (c) 14
- (d) 24

111. The movement of the sole of the foot inward or medially is -----

- (a) Inversion
- (b) Eversion
- (c) Pronation
- (d) Supination

112. Shoulder joint is an example of:

- (a) Primary cartilaginous joint.
- (b) Secondary cartilaginous joint.
- (c) Ball and socket joint.
- (d) Syndesmosis.

113. Very muscular organ used to grind food in birds is called the:

- (a) Crop
- (b) Gizzard

- (c) Proventriculus  
(d) Beak
114. Halteres are modified:  
(a) Forewings  
(b) Scales  
(c) Hindwings  
(d) Antennae
115. Which of the scales are used for fish age and growth studies?  
(a) Cycloid  
(b) Placoid  
(c) Ganoid  
(d) Rhomboid
116. Uropygial gland is associated with:  
(a) Shark  
(b) Lizard  
(c) Pigeon  
(d) Frog
117. Acetabulum is part of:  
(a) Sternum  
(b) Skull  
(c) Pelvic girdle  
(d) Pectoral girdle
118. All of the following pathogenic bacteria fulfil Koch's postulates **EXCEPT**:  
(a) *Treponema pallidum*.  
(b) *Yersinia pestis*.  
(c) *Bacillus anthracis*.  
(d) *Helicobacter pylori*.
119. Category A bioterrorism agents are:  
(a) *Clostridium botulinum*  
(b) *Vibrio cholerae*  
(c) *Pseudomonas aeruginosa*  
(d) *E. coli*
120. Holding time for sterilization by dry heat at temperature of 160°C is:  
(a) 5 minutes  
(b) 15 minutes  
(c) 60 minutes  
(d) 45 minutes
121. Which human infection spreads through urine?  
(a) Leptospirosis  
(b) Legionellosis  
(c) Plague  
(d) Diphtheria
122. Louis Pasteur is **NOT** associated with:  
(a) Introduction of complex media.  
(b) Discovery of rabies vaccine.  
(c) Discovery of phenomenon of phagocytosis.  
(d) Disproving spontaneous regression theory.
123. Which of the following bacterial genome was sequenced first?  
(a) *Escherichia coli*  
(b) *Streptococcus pneumoniae*  
(c) *Haemophilus influenzae*  
(d) *Sporotrichum thermophile*

## VEDEMY'S CAPSULE ( VEDEMY'S SPECIAL NOTES)

### Amino acid Classes

Essential

Semi-essential

Non-Polar

Polar Uncharged

Negative charged

Positive charged

Gluco-ketogenic

Ketogenic

My Very Talented Friend Is Waiting For KajoL

RaHuL

GAV के लोग PILW लेकर FM सुन रहे थे

CN(कार्टून नेटवर्क) पे STY(सत्य) Ques पूछते हैं

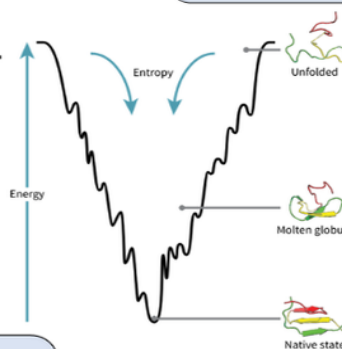
Ye DEKh

RaHuL bola

Itni Talented WYF (wife)

KajoL

### Protein Folding Curve



Energy profile-  
High

U- Unstructured  
M- molten globule  
D- discrete structure  
N- native  
A- amorphous  
A- amyloid

Low

Urmila  
Matoldkar ka  
DNA  
Achha hai

### Hemoglobin

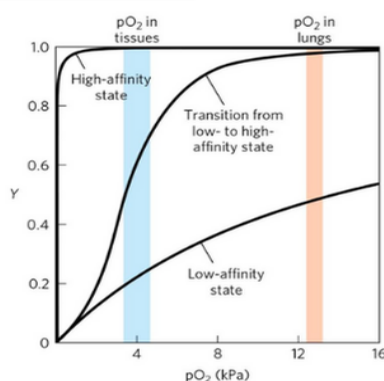
Oxy Hb

Less acidic (Tensed state)

State of Hb - **MOLD**

More acidic  
(Relaxed state)

Deoxy Hb



H+, Temp. BPG, CO<sub>2</sub>

Increase

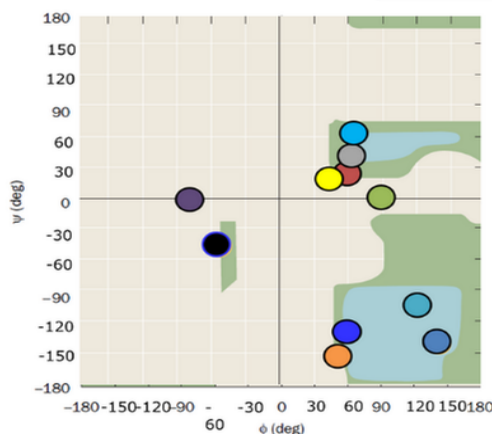
Left shift

Affinity of Curve - **DRIL**

Decrease

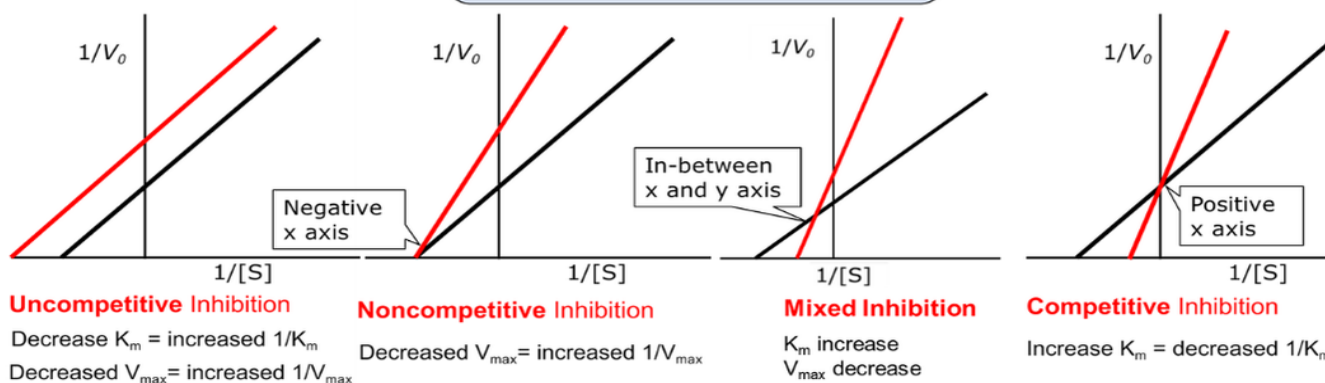
Right shift

### Ramachandran plot



Secondary Structure	Phi	Psi
AP β Sheet	+140°	-135°
P β Sheet	+120°	-115°
CTH	+50°	-150°
L-α-H	-60°	-50°
R-α-H	+60°	+50°
Type-I i+1	+60°	+30°
Type-I i+2	+90°	0°
Type-II i+1	+60°	-120°
Type-II i+2	-80°	0°

### Enzyme Inhibition Curve



Parallel

Negative x axis

In-between x and y axis

Uncompetitive

**UP**

ke **NaNa** patekar

Non-competitive

**MI**

ka **PC** lekar aaye

Positive x axis

Competitive

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124. How many genes are there in E. coli K-12 genome?  
 (a) 4377  
 (b) 5467  
 (c) 2498  
 (d) 3000
125. Which of the following organisms has the largest genome size?  
 (a) Mycoplasma genitalium  
 (b) Escherichia coli  
 (c) Amoeba dubia  
 (d) Homo sapiens
126. Principal protein in milk is:  
 (a) Albumin  
 (b) Lactalbumin  
 (c) Casein  
 (d) Globulin
127. The ratio of LD50 to ED50 is:  
 (a) Therapeutic Window  
 (b) Efficacy  
 (c) Therapeutic Index  
 (d) Potency
128. Which of the following is **NOT** required for a PCR reaction?  
 (a) A DNA polymerase  
 (b) Dideoxy.dNTPs  
 (c) Primers  
 (d) Template DN
129. Which of these restriction enzymes produce blunt ends?  
 (a) Sall  
 (b) EcoRV  
 (c) XhoI  
 (d) HindIII
130. Autonomously replicating sequence (ARS) is a feature of:  
 (a) E. coli vector  
 (b) Phage vector  
 (c) Yeast vector  
 (d) Plasmid vector
131. What is **NOT** common between an expression vector and cloning vector:  
 (a) Origin of replication  
 (b) Restriction sites  
 (c) Marker genes  
 (d) Promoter
132. A cDNA library:  
 (a) Can also be called an expressed sequence tag (EST) library.  
 (b) Is Compulsory DNA library.  
 (c) Part of Protein domain.  
 (d) Only found in plants.
133. Which of these might be an advantage to genetic testing of individuals via microarrays?  
 (a) Many different potential mutations in a single gene could be tested at once.  
 (b) Expression patterns of many different genes can be analyzed simultaneously.  
 (c) Microarray analysis can provide information on sequence lengths of particular genes.  
 (d) A and B
134. Agrobacterium tumefaciens is a:  
 (a) Gram (+) bacteria

- (b) Gram (-) bacteria
- (c) A fungus
- (d) A yeast

135. What is Organogenesis?

- (a) Formation of callus tissue.
- (b) Formation of root and shoots on callus tissue.
- (c) Genesis of organs.
- (d) Flowering

136. Genetically engineered crop being used in India:

- (a) Cotton
- (b) Rice
- (c) Wheat
- (d) Potato

137. Genetic engineering in crop plants is used for:

- (a) Crop improvement
- (b) Plant propagation
- (c) Crop harvesting
- (d) Recycling

138. Which of the following is a nucleotide sequence data base?

- (a) EMBL
- (b) SWISS PROT
- (c) PROSITE
- (d) TREMBL

139. Sequencing 'depth' is also known by another term:

- (a) Amount
- (b) Coverage
- (c) Trend
- (d) Consensus

140. Taxonomy using 16s rRNA was defined by:

- (a) Watson
- (b) Huckley
- (c) Woese
- (d) Crick

141. All are the essential pharmacovigilance **EXCEPT**:

- (a) Detection of ADRs
- (b) Treatment of ADRs
- (c) Assessment of ADRs
- (d) Protection of ADRs

142. Which of the following plant/s is commonly used for biodiesel production in India?

- (a) Jatropha
- (b) Calotropis
- (c) Bamboo
- (d) Both (b) & (c)

143. Extinction of Dodo was mainly due to:

- (a) Pollution
- (b) Introduction of pig
- (c) Hunting
- (d) Habitat Destruction

144. Which of the following is a bio remedial technique?

- (a) Composting
- (b) Oxidation
- (c) Reduction

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(d) Sedimentation

145. Substitute of Chloro Fluoro Carbon (CFCs) used in refrigerators is:

- (a) Hydrofluorocarbon
- (b) Methane
- (c) Helium
- (d) Hydrochlorofluorocarbon

146. What changes in the plant indicate the toxic effects of SO<sub>2</sub>?

- (a) Falling of leaves
- (b) Drooping of leaves
- (c) Darkening of leaves
- (d) Bleaching of leaves

147. The Earth day is celebrated on:

- (a) 22nd March
- (b) 5th June
- (c) 22nd April
- (d) 8th May

148. White leghorn is a breed of:

- (a) Pig
- (b) Dog
- (c) Horse
- (d) Poultry

149. Rumen is present in which of the following animals:

- (a) Dog
- (b) Cow
- (c) Horse
- (d) Poultry

150. A sheep is called:

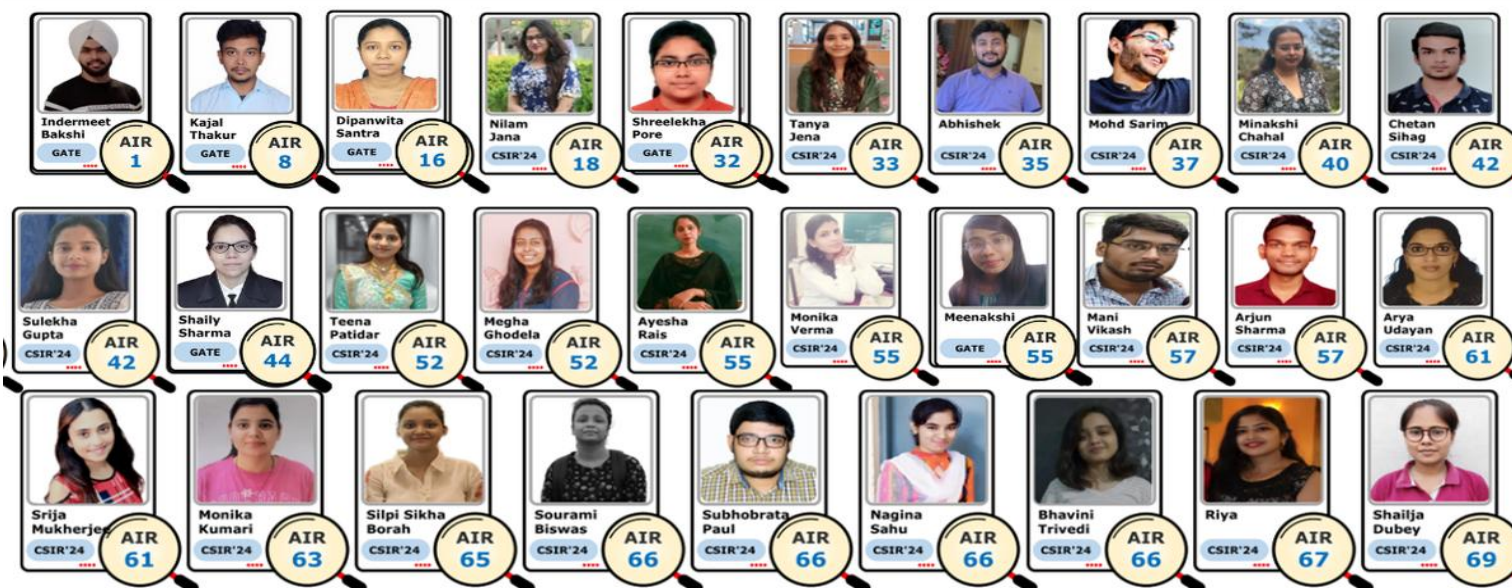
- (a) Bovine
- (b) Ovine
- (c) Canine
- (d) Swine

## ICMR-BRET-JRF 2018 ANSWER KEY

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
b	a	a	b	c	b	a	b	a	a	b	b	b	a	c	b	d	a	a	c
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
b	d	d	a	d	b	c	b	d	c	c	d	d	a	c	d	c	c	b	c
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
d	d	c	c	a	c	b	a	c	d	b	c	d	b	b	c	d	a	b	a
61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
c	a	a	a	b	c	b	d	b	d	d	a	a	a	a	c	c	c	d	a
81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
d	c	c	a	b	b	b	c	b	d	b	b	a	a	a	a	c	a	d	b
101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
c	c	d	a	b	c	a	c	c	c	a	c	c	c	a	c	c	a	a	c
121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
a	c	c	a	c	c	c	b	b	c	d	a	d	b	b	a	a	a	b	c
141	142	143	144	145	146	147	148	149	150										
b	a	b	a	a	d	c	d	b	b										



# RESULTS हो तो कैसे? VEDEMY जैसे India's BEST Result



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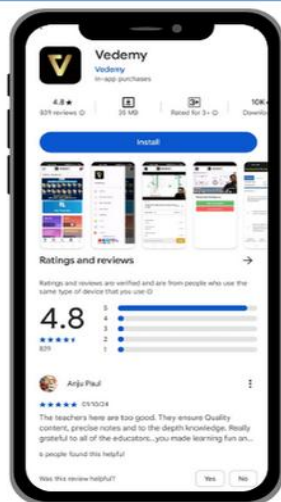
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