JNUEE PHD Environmental Sciences

1) A hypothesis concerned with a phenomenon is accepted through many experiments over a long period of time. This hypothesis is usually known as scientific[Question ID = 13245][Question Description = S1_ONEH_885_PhD_Q001]

1. law [Option ID = 118167]
2. principle [Option ID = 118168]
3. theory [Option ID = 118169]
4. model [Option ID = 118170]

2) Given below are two statements:
Statement I: A scientific law describes an important relationship that is observed in nature to occur consistently with time.
Statement II: A scientific principle describes a more specific set of relationship than is usually identified in a scientific law.
In the light of the above statements, choose the most appropriate answer from the options given below
[Question ID = 13246][Question Description = S1_ONEH_885_PhD_Q002]

1. Both Statement I and Statement II are correct [Option ID = 118171]
2. Both Statement I and Statement II are incorrect [Option ID = 118172]
3. Statement I is correct but Statement II is incorrect [Option ID = 118173]
4. Statement I is incorrect but Statement II is correct [Option ID = 118174]

3) Which of the following is NOT an act of plagiarism?[Question ID = 13247][Question Description = S1_ONEH_885_PhD_Q003]

1. Submitting a research paper that you have already used in other research paper [Option ID = 118175]
2. Disagreeing with the source you cited [Option ID = 118176]
3. Paraphrasing too close to the source [Option ID = 118177]
4. Use of somebody else's data as your own [Option ID = 118178]

4) Research misconduct does NOT include[Question ID = 13248][Question Description = S1_ONEH_885_PhD_Q004]

1. Fabrication [Option ID = 118179]
2. Falsification [Option ID = 118180]
3. Plagiarism [Option ID = 118181]
4. Citation [Option ID = 118182]

5) Plagiarism is the[Question ID = 13249][Question Description = S1_ONEH_885_PhD_Q005]

1. study of research and research methodologies [Option ID = 118183]
2. scholarship required in the research project [Option ID = 118184]
3. term for the relationship between the research and the research supervisor [Option ID = 118185]
4. use and/or presentation of somebody else's work or ideas as your own [Option ID = 118186]

6) If an individual makes a substantial contribution to the research or the writing of the research report, but is NOT listed as an author is called as
[Question ID = 13250][Question Description = S1_ONEH_885_PhD_Q006]

1. honouring authorship [Option ID = 118187]
2. ghost authorship [Option ID = 118188]
3. coercion authorship [Option ID = 118189]
4. mutual support authorship [Option ID = 118190]

7) Given below are two statements:
Statement I: The h-index is a measure of the impact of a researcher's work and is based on the number of times that researcher's work is cited.
Statement II: Web of science and google scholar both track citations, and therefore, can be used to calculate a researcher's h-index.
In the light of the above statements, choose the most appropriate answer from the options given below
[Question ID = 13251][Question Description = S1_ONEH_885_PhD_Q007]

1. Both Statement I and Statement II are correct [Option ID = 118191]
2. Both Statement I and Statement II are incorrect [Option ID = 118192]
3. Statement I is correct but Statement II is incorrect [Option ID = 118193]
4. Statement I is incorrect but Statement II is correct [Option ID = 118194]

8) Observations, questionnaires and interviews are all part of[Question ID = 13252][Question Description = S1_ONEH_885_PhD_Q008]

1. research methodologies [Option ID = 118195]
2. theoretical frameworks [Option ID = 118196]
3. fundamental philosophies [Option ID = 118197]
4. data gathering methods [Option ID = 118198]

9) At 35°C, what will be the pH of 0.100 M NaOH solution? Assume activity coefficient of OH- in solution is 1.00 and pKw is

13.68.[Question ID = 13253][Question Description = S1_ONEH_885_PhD_Q009]

1. 14.68 [Option ID = 118199]
2. 12.68 [Option ID = 118200]
3. 10.68 [Option ID = 118201]
4. 8.68 [Option ID = 118202]

10) Which of the following are used as drying agents in laboratory desiccators?

A. Silica Gel

B. Silica granules

C. Activated alumina

D. Calcium chloride

E. NaOH (sticks)

Choose the correct answer from the options given below:

[Question ID = 13254][Question Description = S1_ONEH_885_PhD_Q010]

1. A, B, C and D only [Option ID = 118203]
2. A, C and D only [Option ID = 118204]
3. A, C, D and E only [Option ID = 118205]
4. A, B, C, D and E [Option ID = 118206]

11) Given below are two statements:

Statement I: In a sample, difference between the determined value of a parameter and the estimated value of that parameter is termed as bias.

Statement II: Closeness of results of repetitive measurement of a parameter in a sample is an indicator of good precision, though the average result is not close to the true value.

In the light of the above statements, choose the most appropriate answer from the options given below

[Question ID = 13255][Question Description = S1_ONEH_885_PhD_Q011]

1. Both Statement I and Statement II are correct [Option ID = 118207]
2. Both Statement I and Statement II are incorrect [Option ID = 118208]
3. Statement I is correct but Statement II is incorrect [Option ID = 118209]
4. Statement I is incorrect but Statement II is correct [Option ID = 118210]

12) A water sample has salinity of 40 parts per thousand, what will be the equivalent percentage measure?[Question ID = 13256][Question Description = S1_ONEH_885_PhD_Q012]

1. 400 percent [Option ID = 118211]
2. 40 percent [Option ID = 118212]
3. 4 percent [Option ID = 118213]
4. 0.4 percent [Option ID = 118214]

13) The Clark sensor is widely used in clinical laboratories for measuring[Question ID = 13257][Question Description = S1_ONEH_885_PhD_Q013]

1. oxygen concentration in blood [Option ID = 118215]
2. glucose concentration in blood [Option ID = 118216]
3. haemoglobin level in blood [Option ID = 118217]
4. carbon dioxide in blood [Option ID = 118218]

14) . Match List I with List II

List I (Bond)	List II (Frequency)
A. C=O stretching	1. 3300 cm⁻¹
B. C-H stretching in aldehyde	2. 3000 cm⁻¹
C. C≡C stretching	3. 1750 cm⁻¹
D. O-H stretching in carboxylic acid	4. 1500 cm⁻¹

Choose the correct answer from the options given below:

[Question ID = 13258][Question Description = S1_ONEH_885_PhD_Q014]

1. A-IV, B-III, C-I, D-II [Option ID = 118219]
2. A-III, B-IV, C-II, D-I [Option ID = 118220]
3. A-IV, B-III, C-II, D-I [Option ID = 118221]
4. A-III, B-IV, C-I, D-II [Option ID = 118222]

15) An unknown compound, having 1.10% C-13 atoms, has a molecular ion M^+ and $(M+1)^+$ peaks with relative abundance of 54.5% and 3.6%, respectively. How many carbon atom does the unknown compound contain?

[Question ID = 13259][Question Description = S1_ONEH_885_PhD_Q015]

1. Four [Option ID = 118223]
2. Five [Option ID = 118224]
3. Six [Option ID = 118225]
4. Seven [Option ID = 118226]

16) Beer Lambert's law gives relationship between[Question ID = 13260][Question Description = S1_ONEH_885_PhD_Q016]

1. reflected radiation and concentration [Option ID = 118227]

2. scattered radiation and concentration [Option ID = 118228]
3. energy absorption and concentration [Option ID = 118229]
4. absorption and reflected radiation [Option ID = 118230]

17) A polarimeter has a zero error of -0.1°, i.e., it reads -0.1° when the true angle of rotation is 0°. What is the true angle when polarimeter reads 9.80°?
[Question ID = 13261][Question Description = S1_ONEH_885_PhD_Q017]
1. 9.9° [Option ID = 118231]
2. 9.7° [Option ID = 118232]
3. 9.8° [Option ID = 118233]
4. 8.82° [Option ID = 118234]

18) Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R
Assertion A: The principle of the technique for measuring concentrations of H^+, Na^+ and Ca^{2+} ions differ from those for measuring O_2 and CO_2 concentrations in blood.
Reason R: H^+, Na^+ and Ca^{2+} are measured by voltage generated by an electrochemical cell, while O_2 and CO_2 are measured by the current generated by an electrolysis cell (amperometric method).
In the light of the above statements, choose the most appropriate answer from the options given below
[Question ID = 13262][Question Description = S1_ONEH_885_PhD_Q018]
1. Both A and R are correct and R is the correct explanation of A [Option ID = 118235]
2. Both A and R are correct but R is NOT the correct explanation of A [Option ID = 118236]
3. A is correct but R is not correct [Option ID = 118237]
4. A is NOT correct but R is correct [Option ID = 118238]

19) Identify the rock type with average weight percent composition of 42.3% SiO_2 and 4.2% Al_2O_3.
[Question ID = 13263][Question Description = S1_ONEH_885_PhD_Q019]
1. Granodiorite [Option ID = 118239]
2. Peridotite [Option ID = 118240]
3. Granite [Option ID = 118241]
4. Andesite [Option ID = 118242]

20) Identify the correct sequence of methods for determination of sand, silt and clay size distributions of an unconsolidated sediment.[Question ID = 13264][Question Description = S1_ONEH_885_PhD_Q020]
1. Sedimentation, sieving, handpicking [Option ID = 118243]
2. Sieving, sedimentation, pipette method [Option ID = 118244]
3. Sieving, magnetic separation, hand picking [Option ID = 118245]
4. Sedimentation, magnetic separation, sieving [Option ID = 118246]

21) Given below are two statements
Statement I: Rhyolite is a fine grained extrusive rock having high silica, calcium and magnesium.
Statement II: Gabbro is a coarse grained intrusive rock having high silica, sodium and potassium.
In the light of the above statements, choose the most appropriate answer from the options given below
[Question ID = 13265][Question Description = S1_ONEH_885_PhD_Q021]
1. Both statement I and statement II are correct [Option ID = 118247]
2. Both statement I and statement II are incorrect [Option ID = 118248]
3. Statement I is correct but statement II is incorrect [Option ID = 118249]
4. Statement I is incorrect but statement II is correct [Option ID = 118250]

22) Match List I with List II

List 1 (Maturity)	List II (Characteristics of sediments)
A. Immature	I. >5% mud, sand grains are poorly sorted and not well rounded
B. Sub mature	II. No clay, sand grains are well sorted and rounded
C. Mature	III. >5% mud, sand grains are poorly sorted and angular
D. Super mature	IV. Little or no mud, sand grains are well sorted and not rounded

Choose the correct answer from the options given below:

[Question ID = 13266][Question Description = S1_ONEH_885_PhD_Q022]
1. A-III, B-I, C-II, D-IV

   [Option ID = 118251]
2. A-III, B-I, C-IV, D-II

[Option ID = 118252]

3. A-III, B-II, C-I, D-IV

[Option ID = 118253]

4. A-I, B-II, C-IV, D-III

[Option ID = 118254]

23) Match List I with List II

List 1 (Rocks)	List II (Characteristics)
A. Schist	I. Higher temperature, mixture of igneous and metamorphic rocks
B. Slate	II. Low grade and platy crystal
C. Migmatite	III. High grade, coarse bands of light and dark mineral sequence
D. Gneiss	IV. Low grade, fine grained with sequence of light and dark bands

Choose the correct answer from the options given below:

[Question ID = 13267][Question Description = S1_ONEH_885_PhD_Q023]

1. A-II, B-I, C-III, D-IV [Option ID = 118255]
2. A-IV, B-II, C-I, D-III [Option ID = 118256]
3. A-II, B-IV, C-I, D-III [Option ID = 118257]
4. A-IV, B-III, C-II, D-I [Option ID = 118258]

24) Match List I with List II

List 1	List II
A. Eon	I. Mesozoic
B. Period	II. Phanerozoic
C. Era	III. Palaeocene
D. Epoch	IV. Cretaceous

Choose the correct answer from the options given below:

[Question ID = 13268][Question Description = S1_ONEH_885_PhD_Q024]

1. A-I, B-II, C-III,D-IV [Option ID = 118259]
2. A-II, B-IV, C-I, D-III [Option ID = 118260]
3. A-II, B-III, C-IV, D-I [Option ID = 118261]
4. A-III, B-I, C-II, D-IV [Option ID = 118262]

25) The luster of a mineral is determined by[Question ID = 13269][Question Description = S1_ONEH_885_PhD_Q025]

1. comparing the appearance of mineral with familiar substance [Option ID = 118263]
2. comparing the colour of the pulverised mineral [Option ID = 118264]
3. measuring the relative ability of mineral to resist scratching [Option ID = 118265]
4. measuring the density of the mineral [Option ID = 118266]

26) Magnitude of an earthquake is measured by [Question ID = 13270][Question Description = S1_ONEH_885_PhD_Q026]

1. relative size and amplitude of ground motion [Option ID = 118267]
2. exact size and amplitude of soil motion [Option ID = 118268]
3. appropriate size and amplitude of surface motion [Option ID = 118269]
4. normal size and amplitude of soil motion [Option ID = 118270]

27) . Match List I with List II

List 1	List II
A. Medium to coarse	I. Conglomerate
B. Fine	II. Shale
C. Very fine	III. Arkose
D. Coarse to very coarse	IV Siltstone

Choose the correct answer from the options given below:

[Question ID = 13271][Question Description = S1_ONEH_885_PhD_Q027]

1. A-III, B-II, C-I, D-IV [Option ID = 118271]
2. A-III, B-IV, C-II, D-I [Option ID = 118272]
3. A-II, B-III, C-I , D-IV [Option ID = 118273]
4. A-IV, B-II, C-III, D-I [Option ID = 118274]

28) The following chemicals are used in the gravity separation of heavy minerals

A. Bromoform

B. Acetic acid

C. Glycol

D. Acetylene tetra bromide

E. Methylene iodide

Choose the correct answer from the options given below:

[Question ID = 13272][Question Description = S1_ONEH_885_PhD_Q028]

1. A, B and C only [Option ID = 118275]
2. A, B and D only [Option ID = 118276]

3. A, C and E only [Option ID = 118277]
4. A, D and E only [Option ID = 118278]

29) If there is 5.5×10^9 human living on this planet and each individual has about 30,000 genes. The average mutation rate at each locus is 10^{-5}. Assuming that these mutations are equally distributed among all genes, how many new mutations have arisen in each gene in the human population?[Question ID = 13273][Question Description = S1_ONEH_885_PhD_Q029]
1. 3.3×10^9 [Option ID = 118279]
2. 11×10^4 [Option ID = 118280]
3. 11×10^9 [Option ID = 118281]
4. 11×10^5 [Option ID = 118282]

30) The analysis which allows mass screening for a specific DNA sequence among thousands of cloned genes, in a single assay, is termed as[Question ID = 13274][Question Description = S1_ONEH_885_PhD_Q030]
1. electrophoresis of nucleic acid [Option ID = 118283]
2. DNA hybridisation [Option ID = 118284]
3. DNA microarray [Option ID = 118285]
4. FISH [Option ID = 118286]

31) Glucose gives silver mirror test with ammoniacal $AgNO_3$ because it contains[Question ID = 13275][Question Description = S1_ONEH_885_PhD_Q031]
1. ketonic group [Option ID = 118287]
2. amide group [Option ID = 118288]
3. aldehyde group [Option ID = 118289]
4. ester group [Option ID = 118290]

32) A protein solution is in homogeneity. Molecular exclusion chromatography shows product at 80 kDa. With addition of 6M urea, it shows 40 kDa product. β -marcaptoethanol treatment gives ultimate 20 kDa by chromatography. The protein is

[Question ID = 13276][Question Description = S1_ONEH_885_PhD_Q032]
1. degraded protein product

   [Option ID = 118291]
2. 40 kDa homotetramer

   [Option ID = 118292]
3. 20 kDa homotetramer

   [Option ID = 118293]
4. 40 kDa homodimer

   [Option ID = 118294]

33)

Match the List I with List II

List I (Type of phosphatase)	List II (Substrate used)
A. Acid phosphatase	I. 5-Adenylic acid
B. Pyrophosphatase	II. Dinaphthyl pyrophosphate
C. Phosphodiesterases	III. Naphthyl Phosphate
D. 5-Nucleotidase	IV. RNA/DNA

Choose the correct answer from the options given below:

[Question ID = 13277][Question Description = S1_ONEH_885_PhD_Q033]
1. A-IV, B-III, C-I, D-II [Option ID = 118295]
2. A-III, B-I, C-IV, D-II [Option ID = 118296]
3. A-III, B-II, C-IV, D-I [Option ID = 118297]
4. A-I, B-II, C-III, D-IV [Option ID = 118298]

34) Which of the following types of polymorphisms are commonly detected by PCR using specific oligonucleotide primer? [Question ID = 13278][Question Description = S1_ONEH_885_PhD_Q034]
1. Expressed sequence tags [Option ID = 118299]
2. Short tandem repeat [Option ID = 118300]
3. Restriction fragment length polymorphism [Option ID = 118301]
4. Polymorphism sequence tagged site [Option ID = 118302]

35) In Hershey-Chase experiment, the radioactive isotopes used are

[Question ID = 13279][Question Description = S1_ONEH_885_PhD_Q035]
1. ^{32}P and ^{14}C

   [Option ID = 118303]
2. ^{32}P and ^{35}S

   [Option ID = 118304]
3. ^{35}S and ^{14}C

   [Option ID = 118305]
4. ^{14}C and ^{31}P

36) Calculate the annealing temperature of the following a primer used in PCR
5' – TTGAAAATATTTCCCATTGCC-3'
[Question ID = 13280][Question Description = S1_ONEH_885_PhD_Q036]
1. 65°C [Option ID = 118307]
2. 58°C [Option ID = 118308]
3. 63°C [Option ID = 118309]
4. 55°C [Option ID = 118310]

37) In which of the following reactions, reagent is made by treating triamino-triphenyl-methane chloride with sulfurous acid to convert into colorless compound, which changes the colour by the aldehyde groups present in the tissue? [Question ID = 13281][Question Description = S1_ONEH_885_PhD_Q037]
1. Feulgen reaction [Option ID = 118311]
2. Schiff's reaction [Option ID = 118312]
3. Periodic-Acid-Schiff's (PAS) reaction [Option ID = 118313]
4. Plasmal reaction [Option ID = 118314]

38) Which of the following plasticware can bear highest temperature, very resistant to strong alkalis and weak acids, and is opaque in nature?[Question ID = 13282][Question Description = S1_ONEH_885_PhD_Q038]
1. High density Polythene [Option ID = 118315]
2. PTFE (Teflon) [Option ID = 118316]
3. TPX (Polymethylpentene) [Option ID = 118317]
4. Polypropylene [Option ID = 118318]

39) Given below are two statements. One is labelled as assertion A and the other is labelled as reason R.
Assertion A: The effect on the inducibility of the *lac* operon of a mutation disrupts the function of the *crp* gene, which codes the CAP protein.
Reason R: Without a CAP binding site there would be reduction in the inducibility of the *lac* operon.
In the light of the above statement, choose the correct answer from the options below.

[Question ID = 13283][Question Description = S1_ONEH_885_PhD_Q039]
1. Both A and R are true and R is the correct explanation of A

  [Option ID = 118319]
2. Both A and R are true and R is **NOT** the correct explanation of A

  [Option ID = 118320]
3. A is true and R is false

  [Option ID = 118321]
4. A is false but R is true

  [Option ID = 118322]

40) Given below are two statements
Statement I: In a time series, similar past and future statistical information lead to its stationarity.
Statement II: In that sense, stationarity implies that mean and auto correlation function of the data series do not change with time.
In the light of the above statements, choose the most *appropriate* answer from the options given below
[Question ID = 13284][Question Description = S1_ONEH_885_PhD_Q040]
1. Both Statement I and Statement II are correct [Option ID = 118323]
2. Both Statement I and Statement II are incorrect [Option ID = 118324]
3. Statement I is correct but Statement II is incorrect [Option ID = 118325]
4. Statement I is incorrect but Statement II is correct [Option ID = 118326]

41) The sample or event space is the set of all possible[Question ID = 13285][Question Description = S1_ONEH_885_PhD_Q041]
1. non-occurrence [Option ID = 118327]
2. events [Option ID = 118328]
3. biased events [Option ID = 118329]
4. undefined events [Option ID = 118330]

42) The relationship among events in a sample space can be geometrically represented by[Question ID = 13286][Question Description = S1_ONEH_885_PhD_Q042]
1. distribution function [Option ID = 118331]
2. probability function [Option ID = 118332]
3. space diagram [Option ID = 118333]
4. Venn diagram [Option ID = 118334]

43) Which of the following are two important properties of exploratory data analysis methods?
A. Homogeneity
B. Robustness

C. Resistance
D. Stationarity
E. Non-Linearity
Choose the correct answer from the options given below:
[Question ID = 13287][Question Description = S1_ONEH_885_PhD_Q043]
1. A and B only [Option ID = 118335]
2. B and C only [Option ID = 118336]
3. C and D only [Option ID = 118337]
4. A, B and D only [Option ID = 118338]

44) Which of the following sample quantiles are often used in exploratory summarization
of data.
A. 25th percentile
B. Mode
C. Median
D. 50th percentile
E. 75th percentile
Choose the correct answer from the options given below:

[Question ID = 13288][Question Description = S1_ONEH_885_PhD_Q044]
1. A and B only

   [Option ID = 118339]
2. A, B and C only

   [Option ID = 118340]
3. C and D only

   [Option ID = 118341]
4. C, D and E only

   [Option ID = 118342]

45) The histogram, a familiar graphical display of batch of data, represents[Question ID = 13289][Question Description =
S1_ONEH_885_PhD_Q045]
1. range [Option ID = 118343]
2. class interval [Option ID = 118344]
3. distribution [Option ID = 118345]
4. range and class interval both [Option ID = 118346]

46) Representations of a set of data are correctly shown by the diagrams
A. histogram
B. scatter plot
C. box - whisker plot
D. linear plot
E. frequency distribution plot
Choose the correct answer from the options given below:

[Question ID = 13290][Question Description = S1_ONEH_885_PhD_Q046]
1. A, B and C Only

   [Option ID = 118347]
2. A, B, C, D and E

   [Option ID = 118348]
3. A, B Only

   [Option ID = 118349]
4. C, D, E Only

   [Option ID = 118350]

47) The idea behind calculating standardized anomaly is to remove the influence of which of the following from a batch of
data[Question ID = 13291][Question Description = S1_ONEH_885_PhD_Q047]
1. variability [Option ID = 118351]
2. spread [Option ID = 118352]
3. mean [Option ID = 118353]
4. mode [Option ID = 118354]

48) Two parameters of Gamma distribution are[Question ID = 13292][Question Description = S1_ONEH_885_PhD_Q048]
1. shape parameter and median [Option ID = 118355]
2. mean and median [Option ID = 118356]
3. shape parameter and scale parameter [Option ID = 118357]
4. scale parameter and mean [Option ID = 118358]

49) Given below are two statements
Statement I: In the multiple linear regression, one variable is independent.

Statement II: Other variables are dependent on the variable considered in above statement I.
In the light of the above statements, choose the *most appropriate* answer from the options given below
[Question ID = 13293][Question Description = S1_ONEH_885_PhD_Q049]
1. Both Statement I and Statement II are correct [Option ID = 118359]
2. Both Statement I and Statement II are incorrect [Option ID = 118360]
3. Statement I is correct but Statement II is incorrect [Option ID = 118361]
4. Statement I is incorrect but Statement II is correct [Option ID = 118362]

50) Given below are two statements
Statement I: Short coming of the box - whisker plot is about information and the tails of data.
Statement II: Whisker, extended to highest and lowest values does not provide information about distribution of data between upper and lower quartile of the data.
In the light of the above statements, choose the *most appropriate* answer from the options given below
[Question ID = 13294][Question Description = S1_ONEH_885_PhD_Q050]
1. Both Statement I and Statement II are correct [Option ID = 118363]
2. Both Statement I and Statement II are incorrect [Option ID = 118364]
3. Statement I is correct but Statement II is incorrect [Option ID = 118365]
4. Statement I is incorrect but Statement II is correct [Option ID = 118366]

51) If an objective in a pyrolysis process is to produce the highest amount of char, what should be the process condition?
[Question ID = 13295][Question Description = S1_ONEH_885_PhD_Q051]
1. Slow pyrolysis and low temperature [Option ID = 118367]
2. Fast pyrolysis and low temperature [Option ID = 118368]
3. Slow pyrolysis and high temperature [Option ID = 118369]
4. Fast pyrolysis and high temperature [Option ID = 118370]

52) Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R
Assertion A: Among the greenhouse gases N_2O, CH_4, H_2O vapour, CO_2 is largely responsible for increasing global temperatures.
Reason R: Absorption of light of longer than 13 µm wavelength by CO_2, whose absorption band is centred around 15 µm wavelength lies close to the maximum of long wave irradiance spectrum.
In the light of the above statements, choose the *most appropriate* answer from the options given below
[Question ID = 13296][Question Description = S1_ONEH_885_PhD_Q052]
1. Both A and R are correct and R is the correct explanation of A [Option ID = 118371]
2. Both A and R are correct but R is **NOT** the correct explanation of A [Option ID = 118372]
3. A is correct but R is not correct [Option ID = 118373]
4. A is not correct but R is correct [Option ID = 118374]

53) Given below are two statements:
Statement I: Loam has varying proportions of sand, silt and clay mixed with an abundance of humus and is well drained, yet hold enough moisture for sustained plant growth.
Statement II: A deeper, richer layer of soil is expected where the climate is wet and warm.
In the light of the above statements, choose the *most appropriate* answer from the options given below
[Question ID = 13297][Question Description = S1_ONEH_885_PhD_Q053]
1. Both Statement I and Statement II are correct [Option ID = 118375]
2. Both Statement I and Statement II are incorrect [Option ID = 118376]
3. Statement I is correct but Statement II is incorrect [Option ID = 118377]
4. Statement I is incorrect but Statement II is correct [Option ID = 118378]

54) Given below are two statements:
Statement I: Tropical rain forest is the richest and most diverse biome on the Earth and is characterised by trees growing up to a height of 60 meters.
Statement II: Soils in tropical rain forest are thin and nutrient poor.
In the light of the above statements, choose the *most appropriate* answer from the options given below:
[Question ID = 13298][Question Description = S1_ONEH_885_PhD_Q054]
1. Both Statement I and Statement II are correct [Option ID = 118379]
2. Both Statement I and Statement II are incorrect [Option ID = 118380]
3. Statement I is correct but Statement II is incorrect [Option ID = 118381]
4. Statement I is incorrect but Statement II is correct [Option ID = 118382]

55) Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R
Assertion A: Atmosphere over New Delhi during winter season frequently

encounters smog and poor air quality conditions.
Reason R: Photochemical smog is formed by chemical reactions between NOx and volatile organic compounds in ambient atmosphere.
In the light of the above statements, choose the *most appropriate* answer from the options given below
[Question ID = 13299][Question Description = S1_ONEH_885_PhD_Q055]
1. Both A and R are correct and R is the correct explanation of A [Option ID = 118383]
2. Both A and R are correct but R is **NOT** the correct explanation of A [Option ID = 118384]
3. A is correct but R is not correct [Option ID = 118385]
4. A is not correct but R is correct [Option ID = 118386]

56)
Match List I with List II

List I	List II
A. Minimata disease	I. Cd poisoning
B. Gas Bubble disease	II. Hg poisoning
C. Itai-itai disease	III. Excess nitrate in water
D. Blue baby Syndrome	IV. Excess dissolved oxygen in water

Choose the correct answer from the options given below:

[Question ID = 13300][Question Description = S1_ONEH_885_PhD_Q056]
1. A-I, B-III, C-II, D-IV [Option ID = 118387]
2. A-II, B-IV, C-I, D-III [Option ID = 118388]
3. A-I, B-III, C-IV, D-II [Option ID = 118389]
4. A-II, B-IV, C-III, D-I [Option ID = 118390]

57) Arrange the following in increasing order of electronegativity:
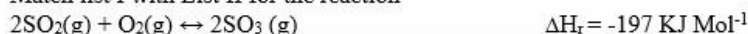A. Br
B. Cl
C. N
D. O
E. F
Choose the correct answer from the options given below:

[Question ID = 13301][Question Description = S1_ONEH_885_PhD_Q057]
1. A<B<C<D<E

   [Option ID = 118391]
2. E<D<C<B<A

   [Option ID = 118392]
3. A<B<D<C<E

   [Option ID = 118393]
4. B<A<D<C<E

   [Option ID = 118394]

58)
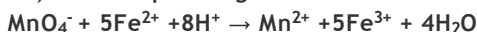Match list I with List II for the reaction
$2SO_2(g) + O_2(g) \leftrightarrow 2SO_3 (g)$ $\Delta H_r = -197$ KJ Mol^{-1}

	List I	List II
A.	Decrease in Temperature	I. Equilibrium shift to right
B.	Increase in Temperature	II. Equilibrium shift to left
C.	Decrease in pressure	III. Equilibrium shift to left
D.	Increase in pressure	IV. Equilibrium shift to right

Choose the correct answer from the options given below:

[Question ID = 13302][Question Description = S1_ONEH_885_PhD_Q058]
1. A-II, B-I, C-III, D-IV [Option ID = 118395]
2. A-I, B-II, C-III, D-IV [Option ID = 118396]
3. A-I, B-II, C-IV, D-III [Option ID = 118397]
4. A-II, B-I, C-IV, D-III [Option ID = 118398]

59) 59. The permanganate oxidation of ferrous ion proceeds in an acidic solution according to the reaction
$MnO_4^- + 5Fe^{2+} + 8H^+ \rightarrow Mn^{2+} + 5Fe^{3+} + 4H_2O$
How many ml of 0.0240M MnO_4^- are required to oxidise 20.0 ml of 0.112 M Fe^{2+}

[Question ID = 13303][Question Description = S1_ONEH_885_PhD_Q059]
1. 1.87 ml

   [Option ID = 118399]
2. 9 ml

   [Option ID = 118400]
3. 26 ml

4. 18.7 ml

[Option ID = 118402]

60) Match List I with List II

List I	List II
A. Baeyer Villiger reaction	I. Alkylation of aromatic compounds in presence of lewis acid
B. Aldol condensation	II. Oxidation of ketone to ester by means of a per acid
C. Arndt Eistert synthesis	III. Reaction between two molecules of an aldehyde to form β hydroxyl aldehyde
D. Friedel Craft reaction	IV. Conversion of carboxylic acid to next higher homologue

Choose the correct answer from the options given below:

[Question ID = 13304][Question Description = S1_ONEH_885_PhD_Q060]
1. A-III, B-II, C-IV, D-I [Option ID = 118403]
2. A-II, B-III, C-IV, D-I [Option ID = 118404]
3. A-I, B-II, C-III, D-IV [Option ID = 118405]
4. A-II, B-III, C-I, D-IV [Option ID = 118406]

61) Arrange the following in increasing order of basic strength
A. p-$CH_3.C_6H_4.NH_2$
B. $(C_6H_5)_2NH$
C. $C_6H_5. NH_2$
D. p-$NO_2.C_6H_4.NH_2$
E. m-$NO_2.C_6H_4.NH_2$
Choose the correct answer from the options given below:

[Question ID = 13305][Question Description = S1_ONEH_885_PhD_Q061]
1. D<E<C<B<A

[Option ID = 118407]
2. D<E<B<C<A

[Option ID = 118408]
3. A<D<E<B<C

[Option ID = 118409]
4. A<D<B<C<E

[Option ID = 118410]

62) Which of the following shows rotational spectra?
A. D2
B. HCl
C. ClO
D. CN
Choose the correct answer from the options given below:
[Question ID = 13306][Question Description = S1_ONEH_885_PhD_Q062]
1. A Only [Option ID = 118411]
2. A and C Only [Option ID = 118412]
3. B, C and D Only [Option ID = 118413]
4. A, B, C and D [Option ID = 118414]

63) Which of the following will be a probable product for the reaction between BCl_3 and excess NaCl in acidic aqueous solution?

[Question ID = 13307][Question Description = S1_ONEH_885_PhD_Q063]
1. $NaCl_4$ and B^-

[Option ID = 118415]
2. $B(OH)_3$ and HCl

[Option ID = 118416]
3. BCl_4^- and NaOH

[Option ID = 118417]
4. $NaBO_4$ and HCl

[Option ID = 118418]

64) Arrange the following forces in order of strength, from strongest to weakest
A. dipole-dipole
B. dipole-induced dipole
C. hydrogen bonding
D. ion-dipole

E. London dispersion
Choose the correct answer from the options given below:

[Question ID = 13308][Question Description = S1_ONEH_885_PhD_Q064]
1. D > C > A > B > E

[Option ID = 118419]
2. A > B > C > D > E

[Option ID = 118420]
3. E > D > C > B > A

[Option ID = 118421]
4. A > E > B > D > C

[Option ID = 118422]

65) Given below are two statements:
Statement I: Fluorescence occurs when an excited atom of same multiplicity as the ground state decay radiatively into ground state. Such transitions are spin allowed and commonly fast.
Statement II: Phosphorescence is a spin forbidden process and involves non radiative intersystem crossing i.e., conversion from initial excited state to another excited state of different multiplicity.
In the light of the above statements, choose the *most appropriate* answer from the options given below
[Question ID = 13309][Question Description = S1_ONEH_885_PhD_Q065]
1. Both Statement I and Statement II are correct [Option ID = 118423]
2. Both Statement I and Statement II are incorrect [Option ID = 118424]
3. Statement I is correct but Statement II is incorrect [Option ID = 118425]
4. Statement I is incorrect but Statement II is correct [Option ID = 118426]

66) Given below are two statements:
Statement I: A chiral complex is a complex that is not superimposable on its own mirror image.
Statement II: Existence of a pair of distinct chiral isomeric complexes that are each other's mirror image and which have lifetimes that are long enough for them to be separable is called optical isomerism.
In the light of the above statements, choose the *most appropriate* answer from the options given below
[Question ID = 13310][Question Description = S1_ONEH_885_PhD_Q066]
1. Both Statement I and Statement II are correct [Option ID = 118427]
2. Both Statement I and Statement II are incorrect [Option ID = 118428]
3. Statement I is correct but Statement II is incorrect [Option ID = 118429]
4. Statement I is incorrect but Statement II is correct [Option ID = 118430]

67) Given below are two statements:
Statement I: Electrical conductivity of a semiconductor increases strongly with temperature.
Statement II: A silicon crystal doped with As gives rise to n type semiconductor.
In the light of the above statements, choose the *most appropriate* answer from the options given below
[Question ID = 13311][Question Description = S1_ONEH_885_PhD_Q067]
1. Both Statement I and Statement II are correct [Option ID = 118431]
2. Both Statement I and Statement II are incorrect [Option ID = 118432]
3. Statement I is correct but Statement II is incorrect [Option ID = 118433]
4. Statement I is incorrect but Statement II is correct [Option ID = 118434]

68) Match List I with List II

List I (Glaciers)	List II (Characteristics)
A. Continental	I. Rivers of ice that flow down valley
B. Temperate	II. Atmospheric temperature is high for glaciers to be (or) near its melting temperature
C. Cirques	III. Ice flows outward from their thickest point
D. Polar	IV. Atmospheric temperature is low and glacier remains well below the melting temperature

Choose the correct answer from the options given below:

[Question ID = 13312][Question Description = S1_ONEH_885_PhD_Q068]
1. A-III, B-I, C-II, D-IV [Option ID = 118435]
2. A-II, B-III, C-I, D-IV [Option ID = 118436]
3. A-IV, B-I, C-II, D-III [Option ID = 118437]

4. A-III, B-II, C-I, D-IV [Option ID = 118438]

69) The drainage pattern consist of isolated water bodies that do not appear to be connected by any systematic surface drainage is called as
[Question ID = 13313][Question Description = S1_ONEH_885_PhD_Q069]
1. Deranged [Option ID = 118439]
2. Sinkhole [Option ID = 118440]
3. Anastomotic [Option ID = 118441]
4. Dichotomic [Option ID = 118442]

70) Given below are two statements
Statement I: Index fossils are widely distributed fossils in limited span of time.
Statement II: Ammonites and Trilobites are index fossils of Palaeozoic and Mesozoic Era, respectively.
In the light of the above statements, choose the *most appropriate* answer from the options given below
[Question ID = 13314][Question Description = S1_ONEH_885_PhD_Q070]
1. Both Statement I and Statement II are correct [Option ID = 118443]
2. Statement I and Statement II are incorrect [Option ID = 118444]
3. Statement I is correct but Statement II is incorrect [Option ID = 118445]
4. Statement I is incorrect but Statement II is correct [Option ID = 118446]

71)   Match List I with List II

List I	List II
A. Siderite	I. Ni-Fe , Plagioclase, Triolite
B. Siderolite	II. Ni-Fe with Silicate
C. Tektites	III. Ni-Fe metallic phase
D. Chondrites	IV. Silicate glass

Choose the correct answer from the options given below:

[Question ID = 13315][Question Description = S1_ONEH_885_PhD_Q071]
1. A-I, B-III, C-I, D-IV [Option ID = 118447]
2. A-II, B-I, C-IV, D-III [Option ID = 118448]
3. A-III, B-II, C-IV, D-I [Option ID = 118449]
4. A-III, B-IV, C-II, D-I [Option ID = 118450]

72) Stream of hot water that erupts episodically from a vent in the ground is known as[Question ID = 13316][Question Description = S1_ONEH_885_PhD_Q072]
1. geysers [Option ID = 118451]
2. springs [Option ID = 118452]
3. speleothems [Option ID = 118453]
4. fjords [Option ID = 118454]

73) Given below are two statements
Statement I: Chromium is strong lithophile element in the Earth crust.
Statement II: Chromium is a chalcophile element if oxygen is deficient in meteorites.
In the light of the above statements, choose the *most appropriate* answer from the options given below
[Question ID = 13317][Question Description = S1_ONEH_885_PhD_Q073]
1. Both Statement I and Statement II are correct [Option ID = 118455]
2. Both Statement I and Statement II are incorrect [Option ID = 118456]
3. Statement I is correct but Statement II is incorrect [Option ID = 118457]
4. Statement I is incorrect but Statement II is correct [Option ID = 118458]

74) Given below are two statements
Statement I: Intra plate earthquakes can occur in the interiors of plates that are not associated with plate boundaries, active rifts or collision zones.
Statement II: Intra plate earthquakes can occur on old faults which were associated with ancient plate boundaries.
In the light of the above statements, choose the *most appropriate* answer from the options given below
[Question ID = 13318][Question Description = S1_ONEH_885_PhD_Q074]
1. Both Statement I and Statement II are correct [Option ID = 118459]
2. Both Statement I and Statement II are incorrect [Option ID = 118460]
3. Statement I is correct but Statement II is incorrect [Option ID = 118461]
4. Statement I is incorrect but Statement II is correct [Option ID = 118462]

75)   Match List I with List II

List I (Igneous rock)	List II (Characteristics)
A. Obsidian	I. Fine grained composed of volcanic ash
B. Tuff	II. Mass of solid felsic glass
C. Pumice	III.Volcanic rock with abundant vesicles
D. Scoria	IV. Felsic volcanic rock contain abundant vesicles

Choose the correct answer from the options given below:

[Question ID = 13319][Question Description = S1_ONEH_885_PhD_Q075]
1. A-II, B-III, C-IV, D-I

   [Option ID = 118463]
2. A-I, B-II, C-IV, D-III

   [Option ID = 118464]
3. A-III, B-I, C-IV,D-II

   [Option ID = 118465]
4. A-II, B-I, C-IV, D-III

   [Option ID = 118466]

76) Which of the following list of rocks are in the order of decreasing particle size?[Question ID = 13320][Question Description = S1_ONEH_885_PhD_Q076]
1. Siltstone, Conglomerate, Sandstone [Option ID = 118467]
2. Conglomerate, Sandstone, Siltstone [Option ID = 118468]
3. Breccia, Shale , Quartz, Sandstone [Option ID = 118469]
4. Quartz, Sandstone, Breccia, Siltstone [Option ID = 118470]

77)

Match List I with List II

List I	List II
A. Danian to Maestrichian	I. Ariyalur
B. Maestrichitian to Senonian	II. Trichinopoly
C. Cenomanian to Upper most Albian	III. Uttatur
D. Senonian to Turonian	IV. Niniyur

Choose the correct answer from the options given below:

[Question ID = 13321][Question Description = S1_ONEH_885_PhD_Q077]
1. A-IV, B-I, C-III, D-II [Option ID = 118471]
2. A-IV, B-III, C-I, D-II [Option ID = 118472]
3. A-I, B-II, C-IV, D-III [Option ID = 118473]
4. A-II, B-III, C-I, D-IV [Option ID = 118474]

78) *Chlamydomonas nivalis* with its bright spores are characterized by maximum growth temperature of 20°C or below, an optimum growth temperature of 15°C or below and minimum growth temperature of 0°C or below. It is a
[Question ID = 13322][Question Description = S1_ONEH_885_PhD_Q078]
1. psychrophiles [Option ID = 118475]
2. psychrotrophs [Option ID = 118476]
3. mesophiles [Option ID = 118477]
4. thermophils [Option ID = 118478]

79) Plant growth is inhibited by the factors produced by symbiotic leguminous plants.

Which of the follwoing is correct statement?

[Question ID = 13323][Question Description = S1_ONEH_885_PhD_Q079]
1. Bacteria supply reduced nitrogen to plant and take sugar.

   [Option ID = 118479]
2. Bacteria supply oxidized nitrogen to plant and take sugar.

   [Option ID = 118480]
3. Bacteria supply oxygen and nitrogen to plant and take sugar.

   [Option ID = 118481]
4. Bacteria supply carbon dioxide and oxidized nitrogen to plant and take oxygen.

   [Option ID = 118482]

80) The climax plants in a desert would be expected to have the adaptations as[Question ID = 13324][Question Description = S1_ONEH_885_PhD_Q080]
1. reduced leaf surface and deep root system [Option ID = 118483]
2. dull leaves and thin epidermis [Option ID = 118484]
3. broad leaves and shallow roots [Option ID = 118485]
4. large number of stomata on the upper surface of the leaves [Option ID = 118486]

81) Concept of trophic structure of a community emphasizes[Question ID = 13325][Question Description = S1_ONEH_885_PhD_Q081]
1. effect of co-evolution [Option ID = 118487]
2. feeding relationship within a community [Option ID = 118488]
3. prevalent form of vegetation [Option ID = 118489]
4. keystone predator [Option ID = 118490]

82) What would be the number of chromosomes in the aleurone cells of a plant with 42 chromosomes in the root tip cells?
[Question ID = 13326][Question Description = S1_ONEH_885_PhD_Q082]
1. 21 [Option ID = 118491]
2. 63 [Option ID = 118492]
3. 42 [Option ID = 118493]
4. 84 [Option ID = 118494]

83) Plane of formation of cell plate in plant cell is governed by[Question ID = 13327][Question Description = S1_ONEH_885_PhD_Q083]
1. nucleolus [Option ID = 118495]
2. centrioles [Option ID = 118496]
3. phragmoplast [Option ID = 118497]
4. microtubules [Option ID = 118498]

84) Which of the following protein's mRNA lacks a poly-A tail?[Question ID = 13328][Question Description = S1_ONEH_885_PhD_Q084]
1. Albumin [Option ID = 118499]
2. Keratine [Option ID = 118500]
3. Histone [Option ID = 118501]
4. Immunoglobulin [Option ID = 118502]

85) If one follows 50 primary oocytes in an animal through their various stages of oogenesis, how many secondary oocytes would be formed?
[Question ID = 13329][Question Description = S1_ONEH_885_PhD_Q085]
1. $(50)^{50}$ [Option ID = 118503]
2. $(50)^2$ [Option ID = 118504]
3. (50) [Option ID = 118505]
4. (100) [Option ID = 118506]

86) The suitable vector of choice to transfer and express a gene from sunflower into beans is
[Question ID = 13330][Question Description = S1_ONEH_885_PhD_Q086]
1. maize streak virus [Option ID = 118507]
2. pBR322 plasmid [Option ID = 118508]
3. Lambda phage [Option ID = 118509]
4. Ti plasmid [Option ID = 118510]

87) Inside an active mitochondrion, most electrons follow pathways of
Krebs cycle→$FADH_2$→Electron transport chain→ ATP
Electron transport chain→ Krebs cycle→ ATP→ Oxygen
Krebs cycle→ NADH→ Electron transport chain→ oxygen
Glycolysis→ NADH→ Oxidative phosphorylation → ATP
Choose the most appropriate answer from the options given below:
[Question ID = 13331][Question Description = S1_ONEH_885_PhD_Q087]
1. A and D only [Option ID = 118511]
2. B only [Option ID = 118512]
3. C only [Option ID = 118513]
4. D only [Option ID = 118514]

88) Free fatty acid enter cells by[Question ID = 13332][Question Description = S1_ONEH_885_PhD_Q088]
1. passive transport [Option ID = 118515]
2. secondary passive transport [Option ID = 118516]
3. secondary active transport [Option ID = 118517]
4. active transport [Option ID = 118518]

89) In light wave experiment, there are bright bands/fringes and dark bands/fringes. This is caused due to
[Question ID = 13333][Question Description = S1_ONEH_885_PhD_Q089]
1. diffraction [Option ID = 118519]
2. interference [Option ID = 118520]
3. refraction [Option ID = 118521]
4. absorption [Option ID = 118522]

90) If a direct light beam of short enough wavelength on a clean metal surface causes electrons to eject the surface, the process is called
[Question ID = 13334][Question Description = S1_ONEH_885_PhD_Q090]
1. doppler effect [Option ID = 118523]
2. photoelectric effect [Option ID = 118524]
3. newtonian effect [Option ID = 118525]
4. gaussion effect [Option ID = 118526]

91) In a simple harmonic motion, changes in amplitude will control its[Question ID = 13335][Question Description = S1_ONEH_885_PhD_Q091]

1. frequency [Option ID = 118527]
2. period [Option ID = 118528]
3. peak [Option ID = 118529]
4. phase [Option ID = 118530]

92) Given below are two statements:

Statement I: The atmosphere is in a state of stability when a lifted parcel of air is cooler than the surrounding air.

Statement II: If this cooled air is moved up to a higher level and released in a stable atmosphere, it will move back to its former level.

In the light of the above statements, choose the *most appropriate* answer from the options given below

[Question ID = 13336][Question Description = S1_ONEH_885_PhD_Q092]

1. Both Statement I and Statement II are correct [Option ID = 118531]
2. Both Statement I and Statement II are incorrect [Option ID = 118532]
3. Statement I is correct but Statement II is incorrect [Option ID = 118533]
4. Statement I is incorrect but Statement II is correct [Option ID = 118534]

93) The relation between flow speed and cross sectional area is represented by equation of continuity for an ideal fluid. If we decrease the cross sectional area, flow speed will

[Question ID = 13337][Question Description = S1_ONEH_885_PhD_Q093]

1. increase [Option ID = 118535]
2. decrease [Option ID = 118536]
3. remain constant [Option ID = 118537]
4. become zero [Option ID = 118538]

94) A fluid, either gas or liquid, when have a relative velocity between it and surrounding body will give rise to

[Question ID = 13338][Question Description = S1_ONEH_885_PhD_Q094]

1. vorticity [Option ID = 118539]
2. acceleration [Option ID = 118540]
3. drag force [Option ID = 118541]
4. rotation [Option ID = 118542]

95) The momentum transfer per unit time per unit area is the pressure exerted on the walls of the volume element by the surrounding air. This will correspond to

[Question ID = 13339][Question Description = S1_ONEH_885_PhD_Q095]

1. pressure [Option ID = 118543]
2. pressure gradient force [Option ID = 118544]
3. Coriolis force [Option ID = 118545]
4. gravitational force [Option ID = 118546]

96) Given below are two statements:

Statement I: Body forces, acting on the centre of fluid mass, are proportional to its mass.

Statement II: Surface forces, acting across the boundary surfaces separating fluid parcel from surrounding, are independent of its mass.

In the light of the above statements, choose the *most appropriate* answer from the options given below

[Question ID = 13340][Question Description = S1_ONEH_885_PhD_Q096]

1. Both Statement I and Statement II are correct [Option ID = 118547]
2. Both Statement I and Statement II are incorrect [Option ID = 118548]
3. Statement I is correct but Statement II is incorrect [Option ID = 118549]
4. Statement I is incorrect but Statement II is correct [Option ID = 118550]

97) Given below are two statements:

Statement I: A point in the continuum of a continuous fluid medium is regarded as a small volume compared with the volume of the corresponding fluid.

Statement II: Field variables and their variables defining the above continuum are discrete function in space and time.

In the light of the above statements, choose the *most appropriate* answer from the options given below

[Question ID = 13341][Question Description = S1_ONEH_885_PhD_Q097]

1. Both Statement I and Statement II are correct [Option ID = 118551]
2. Both Statement I and Statement II are incorrect [Option ID = 118552]
3. Statement I is correct but Statement II is incorrect [Option ID = 118553]
4. Statement I is incorrect but Statement II is correct [Option ID = 118554]

98) In a steady or laminar flow, the velocity of moving fluid at any fixed point[Question ID = 13342][Question Description = S1_ONEH_885_PhD_Q098]

1. changes with time [Option ID = 118555]
2. does not change with time [Option ID = 118556]
3. becomes zero [Option ID = 118557]
4. produces drag [Option ID = 118558]

99) Once acceleration of a particle varies with time, we use Newton's second law to

calculate the corresponding force. Analogous to this, law for simple harmonic motion is represented by

[Question ID = 13343][Question Description = S1_ONEH_885_PhD_Q099]

1. $F = -(ma^2) \cdot x$ [Option ID = 118559]
2. $F = -(m\omega^2) \cdot x$ [Option ID = 118560]
3. $F = ma$ [Option ID = 118561]
4. $F = m\omega^2$ [Option ID = 118562]

100) Gauss' Law describes relation of the electric field at points on a "closed" Gausain surface to the_____enclosed by the surface.[Question ID = 13344][Question Description = S1_ONEH_885_PhD_Q100]

1. net magnetic field [Option ID = 118563]
2. net electricity [Option ID = 118564]
3. net charge [Option ID = 118565]
4. net charged particle [Option ID = 118566]