

## ORIGIN OF LIFE

- Primitive atmosphere was made up of the mixture of:
  - (1) Oxygen, ammonia, methane, water
  - (2) Hydrogen, ammonia, methane, oxygen
  - (3) Hydrogen, steam, methane, ammonia
  - (4) Oxygen, methane, water, nickel
- Which compounds were formed in the direction of the origin of life :
  - (1) Urea, nucleic-acid
  - (2) Urea, amino-acid
  - (3) Proteins, nucleic-acid
  - (4) Protein, amino-acid
- What is most important for origin of life :
  - (1) Carbon
  - (2) Oxygen
  - (3) Water
  - (4) Nitrogen
- Pasteur succeeded in disproving the theory of spontaneous generation because :
  - (1) The laboratory was clean
  - (2) He pulled out the neck of flask into a tube
  - (3) He was lucky
  - (4) Yeast used in flask were dead
- Now the basis of origin of life is :
  - (1) Spontaneous generation
  - (2) God's desire
  - (3) Sunlight on mud
  - (4) None of them
- Oxygen in atmosphere has been formed by :
  - (1) Evaporation of water
  - (2) Photosynthesis of blue green algae
  - (3) Metabolism of microorganisms
  - (4) Decaying organisms
- Primitive atmosphere was reducing because :
  - (1) Hydrogen atoms were few
  - (2) Hydrogen atoms were active and in greater number
  - (3) Nitrogen atoms were more
  - (4) Oxygen atoms were more
- Who called larger colloidal particles of primitive sea as coacervates :
  - (1) Fox
  - (2) Oparin
  - (3) Empedocles
  - (4) Haldane
- Who called water of primitive sea as pre biotic soup :
  - (1) Haldane
  - (2) Oparin
  - (3) Fox
  - (4) Huxley
- Oparin's theory is based on:
  - (1) Artificial synthesis
  - (2) Spontaneous generation
  - (3) God's will
  - (4) All
- Which biologist gave most logical biochemical theory of origin of life ?
  - (1) Urey
  - (2) Oparin
  - (3) Stanley Miller
  - (4) Haeckel

12. During the course of origin of life what was the sequence of substances which appeared on earth :
- (1) Water, oxygen, nucleic acids, enzymes
  - (2) Amino acids, ammonia, phosphates, nucleic acids
  - (3) Glucose, amino acids, nucleic acids, proteins
  - (4) Ammonia, Amino acids, proteins, nucleic acids
13. It is believed that the first organisms which inhabited earth's surface were:
- (1) Autotrophs
  - (2) Mixotrophs
  - (3) Heterotrophs
  - (4) Chromatotrophs
14. A compound having very important role in prebiotic evolution was :
- (1)  $\text{SO}_2$
  - (2)  $\text{CH}_4$
  - (3)  $\text{SO}_3$
  - (4) NO
15. Under certain conditions scientists have obtained non-cellular structures. These are known as:
- (1) Microbes
  - (2) Protists
  - (3) Coacervates
  - (4) Prebiotic soup
16. Who did an experiment to prove that "The organic compounds were the basis of life"?
- (1) Darwin
  - (2) Stanley Miller and Harold C. Urey
  - (3) Melvin
  - (4) Fox
17. Due to discovery of which of the following in 1980, the evolution was termed as RNA world :
- (1) m- RNA , t- RNA, r-RNA synthesise proteins
  - (2) In some virus RNA is genetic material
  - (3) RNA has enzymatic property
  - (4) RNA is not found in all cells
18. What is true for Archaeobacteria :-
- (1) All Halophils
  - (2) All- photosynthetic
  - (3) All fossils
  - (4) Oldest living beings
19. First life on earth was :-
- (1) Cyanobacteria
  - (2) Chemoheterotrophs
  - (3) Autotrophs
  - (4) Photoautotrophs
20. Which of the following is favorite idea of astronomers
- (1) Special creation theory
  - (2) Cosmic panspermia
  - (3) Biogenesis
  - (4) Abiogenesis
21. During chemical evolution, key biological compounds were synthesised :-
- (1) in the atmosphere
  - (2) along the ocean shore
  - (3) in the ocean
  - (4) none of the above

22. Big bang theory was proposed by :  
 (1) Kant (2) Miller (3) Lemaitre (4) Darwin
23. Miller and Urey performed an experiment to prove the origin of life. They took gases  $\text{NH}_3$  and  $\text{H}_2$  along with:  
 (1)  $\text{N}_2$  and  $\text{H}_2\text{O}$  (2)  $\text{H}_2\text{O}$  and  $\text{CH}_4$  (3)  $\text{CH}_4$  and  $\text{N}_2$  (4)  $\text{CO}_2$  and  $\text{NH}_3$
24. Abiogenesis is the :  
 (1) origin of life from non-living material (2) origin of life from living material  
 (3) origin of viruses and microbes (4) none
25. Most modern hypothesis regarding origin of life was given by:  
 (1) Wallace (2) Hugo de Vries (3) Oparin (4) Charles Darwin

### EVIDENCES OF ORGANIC EVOLUTION

26. Which is vestigial organ in man:  
 (1) Pinna (2) Pinna muscles (3) Ileum (4) Teeth
27. Which of the following set in man includes vestigial organs:  
 (1) Coccyx, vermiform appendix and ear muscles  
 (2) Body hair, atlas vertebra and ear muscles  
 (3) Coccyx, wisdom tooth and patella  
 (4) Body hair, cochlea, vermiform appendix and tongue
28. Peripatus is connecting link between :  
 (1) Mollusca and Arthropoda (2) Flat worms and annelida  
 (3) Annelida and Arthropoda (4) Reptilia and Mammalia
29. According to Haeckel's biogenetic law :  
 (1) Development of individual metazon shown embryonic characters of ancestors.  
 (2) Ontogeny repeats phylogeny  
 (3) Germplasm is immortal  
 (4) Every organisms is produced by its parents
30. Which of the following set has homologous organs:  
 (1) Hands of man, monkey and kangaroo and trunk of elephant  
 (2) Wings of insects, birds and bats  
 (3) Hind limbs of grasshopper, horse and bat  
 (4) Mouthparts of cockroach, mosquito and honey bee
31. Which of the following organ in man is vestigial:

- (1) Pinna                      (2) Wisdom tooth                      (3) Fossa ovalis                      (4) Ileum
32. Who was the first to explain recapitulation theory :  
 (1) Weismann                      (2) Haeckel                      (3) Darwin                      (4) Malthus
33. Connecting link between protozoa and one-celled plants is:  
 (1) Paramecium                      (2) Euglena                      (3) Amoeba                      (4) Trypanosoma
34. Connecting link between annelida and mollusca :  
 (1) Cuttlefish                      (2) Octopus                      (3) Neopilina                      (4) Nautilus
35. Which of the following sets do not have homologous organs :  
 (1) Wings of mosquito and butterfly                      (2) Wings of butterfly and bat  
 (3) Mouth parts of cockroach and butter fly                      (4) None of them
36. Wings of locust, pigeon, and bat are example of :  
 (1) Vestigial organs                      (2) Analogous organs  
 (3) Homologous organs                      (4) Exoskeleton
37. Homology is exhibited by :  
 (1) Wings of butterfly, birds and bat  
 (2) Paddle of whale, forearm of horse and forelimbs of man  
 (3) Tail of monkey and bird  
 (4) Sting of scorpion and honey bee
38. Golden age of Dinosaurs was during :  
 (1) Cenozoic era                      (2) Palaeozoic era                      (3) Archeozoic era                      (4) Mesozoic era
39. Evolution of birds and mammals occurred in :  
 (1) Eocene and oligocene periods                      (2) Silurian and devonian periods  
 (3) Carboniferous and Permian periods                      (4) Cretaceous and triassic periods
40. The mesozoic era of earth is called the :  
 (1) Age of amphibians                      (2) Age of armoured fishes  
 (3) Age of primitive man                      (4) Age of ruling reptiles
41. An era "age of birds and mammals" is:  
 (1) Mesozoic                      (2) Palaeozoic                      (3) Cenozoic                      (4) Cretaceous
42. Origin of life took place in which of the following era:  
 (1) Mesozoic                      (2) Palaeozoic                      (3) Precambrian                      (4) Proto
43. Famous palaeontologist / Palaeobotanist of India was:

44. Homologous organs are  
(1) Dissimilar origin and dissimilar structures  
(2) Dissimilar origin but similar functions  
(3) Similar origin with similar or dissimilar functions  
(4) Similar origin with dissimilar functions
45. Human hand, wing of bat and flipper of whale represent  
(1) Analogous organs (2) Vestigial organs  
(3) Homologous organs (4) Evolutionary organs
46. Dinosaurs disappeared during :  
(1) Jurassic (2) Triassic (3) Cretaceous (4) Permian
47. A connecting link between reptiles and birds is :  
(1) Archaeopteryx (2) Platypus (3) Java Ape man (4) Whale
48. Evolution of heart from one to two, three and four chambered proves :-  
(1) Biogenetic law of Haeckel (2) Lamarckism  
(3) Hardy weinberg's law (4) Neo Darwinism
49. Mammals like reptile originated in:-  
(1) Jurassic (2) Triassic (3) Cretaceous (4) Permian
50. Which is not a vestigial organ in man –  
(1) Third molar (2) Nails  
(3) Segmental muscles of abdomen (4) Coccyx
51. Which evidence of evolution is related to Darwin's finches –  
(1) Evidences from biogeographical distribution  
(2) Evidences from vestigial organs  
(3) Evidences from embryology  
(4) Evidences from palaeontology
52. Similarities in organisms with different genotype indicate :  
(1) Microevolution (2) Macroevolution  
(3) Convergent evolution (4) Divergent evolution
53. Birbal Sahni was a :-  
(1) zoologist  
(2) founder of Central Drug Research Institute (CDR)

- (3) ornithologist
- (4) palaeobotanist

**54.** Potato and sweet potato :-

- (1) have edible parts which are hamologous organs
- (2) have edible parts which are analogous organs
- (3) have been introduced in India from the same place
- (4) are two species of the same genus

**55.** The first modern birds appeared during the :-

- (1) Cretaceous period (2) Jurassic period (3) Triassic period (4) Carboniferous period

**56.** Fossils are :

- (1) animals living in burrows (2) remnants of extinct animals and plants
- (3) floating organisms (4) fast runners

**57.** The age of fossils is determined by :

- (1) analysis of bones (2) radioactive c<sup>14</sup> dating
- (3) electron microscopy (4) weighing the fossils

**58.** Missing link in evolution is :

- (1) Peripatus (2) Limulus (3) Pheretima (4) Archaeopteryx

**59.** Convergent evolution of two species is associated with:

- (1) analogous organs (2) recent common ancestor
- (3) homologous organs (4) different habitat

**60.** Organs which have the same fundamental structure but are different in function, are called :

- (1) vestigial organs (2) homologous organs
- (3) analogous organs (4) homoplastic organs

**61.** Wings of insects and wings of birds are the examples of :

- (1) Analogy (2) Homology (3) Serology (4) Mimicry

**62.** Archaeopteryx, a transitional fossil between birds and reptiles was discovered from the rocks of following period:

- (1) Jurassic (2) Archeozoic era (3) Cretaceous (4) Triassic

**63.** Which of the following is not vestigial in man ?

- (1) Tail vertebrae (2) Nails
- (3) Nictitating membrane (4) Vermiform appendix

64. Which one of the following is not a vestigial structure in Homo sapiens ?  
 (1) Third molar (2) Epiglottis (3) Plica semilunaris (4) Segmental muscle
65. Flippers of seal are modified :  
 (1) fins (2) hindlimb (3) forelimb (4) gills
66. Darwin's finches are an example of :  
 (1) Divergent evolution (2) Adaptive radiation  
 (3) Allopatric speciation (4) All of these

### THEORIES OF ORGANIC EVOLUTION

67. Theory of evolution is mainly concerned with :  
 (1) Spontaneous generation (2) Theory of special creation  
 (3) Gradual change (4) Conditions of environment
68. Change with descent is the basis of which theory :  
 (1) Recapitulation theory (2) Oparin's theory  
 (3) Theory of organic evolution (4) Cell theory
69. Name of the scientist who gave Mutation Theory :  
 (1) Wallace (2) Malthus (3) Darwin (4) De Vries
70. Darwin's Theory of Natural Selection was based on:  
 (1) Inheritance of acquired characters  
 (2) Mutation  
 (3) Enormous rate of reproduction in organisms, struggle for existence and survival of the fittest  
 (4) Changes due to the use and disuse of organs
71. Snakes do not have legs because :  
 (1) Legs are lost during their entry in tunnels  
 (2) Legs are lost during evolution  
 (3) The ancestors of reptiles did not have legs  
 (4) There are no legs in lizards
72. One of the revolutionary concepts in biology was Charles Darwin's 'Origin of Species'. It deals with  
 (1) Gene mutation  
 (2) Use and disuse of organs  
 (3) Germplasm Theory  
 (4) Natural selection leading to the survival of the fittest



73. Which of the following is responsible for evolution according to Neo-Darwinism :  
 (1) Mutation (2) Natural selection  
 (3) Mutation and Natural selection (4) Either (1) or (2)
74. A Scientist kept 69 generations of *Drosophila* in darkness even after that the flies had normal eyes, this disproves the law of :  
 (1) Synthetic theory (2) Natural selection  
 (3) Germplasm theory (4) Acquired characters are inherited
75. The ultimate source of variation is:  
 (1) Mutation (2) Sexual reproduction  
 (3) Natural selection (4) Hormonal action
76. Which is the most important factor for evolution of new species :  
 (1) Geographic isolation (2) Extensive in-breeding  
 (3) Extensive out-breeding (4) Non
77. Gene pool is :  
 (1) Genotype of an individual of a population.  
 (2) Different genes of all individuals of a species found in an area  
 (3) Pool of artificially synthesised gene  
 (4) Genes of a genus
78. Which of the following evidences does not favour the Lamarckian concept?  
 (1) Absence of limbs in snakes  
 (2) Presence of webbed toes in aquatic birds  
 (3) Melanization in peppered moth in industrial area  
 (4) Lack of pigment in cave dwelling animals
79. Who wrote the book 'Genetics and origin of species' which deals with synthetic theory of evolution :  
 (1) Dobzhansky (2) Haldane (3) Mayr (4) De Vries
80. Hybrid breakdown is failure of :  
 (1) Hybrid zygote to develop into offspring  
 (2) Hybrid adult to produce fertile offspring  
 (3) Fusion failure of ova and sperms of two species  
 (4) All the above
81. Match the following columns and find correct combination :
- | Column I   | Column II           |
|------------|---------------------|
| (a) Darwin | (p) Mutation theory |



- |              |                                  |
|--------------|----------------------------------|
| (b) De Vries | (q) Protobiosis                  |
| (c) Pasteur  | (r) Origin of species            |
| (d) Fox      | (s) Special Creation             |
|              | (t) Swan-Necked Flask Experiment |

- (1)  $a = r, b = p, c = t, d = q$   
 (2)  $a = p, b = q, c = r, d = s$   
 (3)  $a = t, b = r, c = q, d = p$   
 (4)  $a = r, b = t, c = p, d = q$

- 82.** Frequency of an allele in an isolated population may change due to :-  
 (1) Genetic drift      (2) Gene flow      (3) Mutation      (4) Natural selection
- 83.** Some bacteria are able to grow in Streptomycin containing medium due to -  
 (1) Natural selection      (2) Induced mutation  
 (3) Reproductive isolation      (4) Genetic drift
- 84.** Which of the following is important for speciation :  
 (1) Seasonal isolation      (2) Reproductive isolation  
 (3) Behavioural isolation      (4) Tropical isolation
- 85.** Genetic drift operates in :  
 (i) Small isolated population      (2) Large isolated population  
 (3) Fast reproductive population      (4) Slow reproductive population
- 86.** De Vries gave his mutation theory on organic evolution while working on –  
 (1) *Oenothera lamarckiana*      (2) *Drosophila melanogaster*  
 (3) *Pisum sativum*      (4) *Althea rosea*
- 87.** Which of the following factors help in evolution but is not considered as the basic factor for evolution :  
 (1) Isolation      (2) Adaptation      (3) Variation      (4) Mutation
- 88.** Factors helps in the formation of new species are :  
 (1) competition and variation      (2) isolation and competition  
 (3) competition and mutation      (4) isolation and mutation
- 89.** The idea not related to the Darwinian evolutionary theory is :  
 (1) survival of the best      (2) struggle for existence  
 (3) inheritance of acquired characters      (4) origin of species by natural selection
- 90.** Inheritance of acquired characters comes from :  
 (1) Lamarckism      (2) Darwinism      (3) Neo-Lamarckism      (4) Neo-Darwinism
- 91.** Coverstone of theory of Darwin was :

- (1) natural selection (2) inheritance of acquired characters  
(3) omnis cellulae e cellulae (4) higher productivity
92. The chance of elimination of genes from a small population is an example of :  
(1) selection pressure (2) speciation (3) adaptation (4) genetic drift
93. The classical example of adaptive radiation is :  
(1) Darwin finches (2) marsupials of Australia  
(3) giant turtle (4) all of these
94. Struggle for existence and survival of the fittest theories were given by :  
(1) Wallace (2) Darwin (3) Lamarck (4) none of these
95. Which of the following is not a concept of Lamarck?  
(1) environmental pressure causes variation  
(2) rate & survival of organism is different due to variation  
(3) inheritance of acquired character  
(4) if an organ is used constantly it will continuously increase its size.
96. Initiating force of evolution is :  
(1) Variation (2) Natural selection (3) Adaptation (4) Competition
97. According to the Nee-Darwinian theory which of the following is responsible for the origin of new species?  
(1) Mutations only (2) Useful variations and natural selection  
(3) Mutations together with natural selection (4) Hybridization only
98. Which of the following was not given by Darwin's theory of evolution ?  
(1) Struggle for existence (2) Over production  
(3) Natural selection (4) Genetic drift

### HUMAN EVOLUTION

99. Which primate is closest to man regarding organic evolution:  
(1) Gibbon (2) Gorilla (3) Sinanthropus (4) Orangutan
100. Which character applies to Homo sapiens:  
(1) Opposable toe (2) Large canine  
(3) Cranial capacity 1450 cc (4) Chin prominence absent
101. Homo erectus differed from Cro-magnon man in having:  
(1) Jaws protruding out (2) Tool making  
(3) Sloping jaws (4) Arts and paintings
102. Which of the following statement is correct:  
(1) Proconsul was ancestor of man and ape  
(2) Proconsul was ancestor of man and not of ape  
(3) Apes were ancestor of man anatomically  
(4) None of them

- 103.** Most recent man found as fossil was:  
 (1) Java man (2) Peking man (3) Cro-magnon man (4) Hiedelberg man
- 104.** What was the cranial capacity of java man:  
 (1) 400 cc (2) 650 cc (3) 900 cc (4) 1450 cc
- 105.** Evolution of man was possible because our apelike ancestors :  
 (1) Showed bipedal movement on open land  
 (2) Used fire  
 (3) Felt difficulty in nutrition  
 (4) Developed community hunting
- 106.** What is the contribution of W. C. Pei :  
 (1) He discovered Cro-magnon man (2) He discovered peking man  
 (3) He discovered Java man (4) He discovered Neanderthal man
- 107.** C. Fullhrott made an important discovery in evolution and he discovered :  
 (1) Neanderthal man (2) Cro-magnon man  
 (3) Classification of man (4) Characters of modern apes
- 108.** Characteristics of primitive monkey which was in the direction of evolution of man :  
 (1) Thumb parallel to fingers (2) 32 teeth  
 (3) Prehensile tail (4) Flat nose
- 109.** Greatest advantage of bipedal movement :  
 (1) Fore arms becoming free for carrying out order of brain  
 (2) Greater speed  
 (3) Support the body properly  
 (4) Loss of weight
- 110.** Which fossil man had cranial capacity almost equal to modern man :  
 (1) Austra/opithecus (2) Java ape man (3) Neanderthal man (4)Peking man
- 111.** Largest cranial capacity was found in :  
 (1) Peking man (2) Neanderthal man (3) Java man (4) Cro-magnon man
- 112.** Cro-magnon man was :  
 (1) herbivorous (2) frugivorous (3) carnivorous (4) omnivorous
- 113.** Which of the following is the most primitive ancestor of man ?  
 (1) Homo habilis (2) Ramapithecus (3) Australopithecus (4) Homo neanderthalensis
- 114.** Homo habilis refers to :  
 (1) Wandering species (2) Ancient man  
 (3) Modern man (4) Tool-maker
- 115.** Which of the following statement is true:-  
 (1) Homo erectus is direct ancestor of Homo sapiens

- (2) Neanderthal man is direct ancestor of modern man
- (3) Australopithecus is direct ancestor of modern man
- (4) Fossils of Cromagnon man first found in Ethiopia

- 116.** Character which is closely related to human evolution-
- (1) Disappearance of tail
  - (2) Reduction in size of jaws
  - (3) Binocular vision
  - (4) Flat nails
- 117.** Who is directly related to man-
- (1) Gorilla
  - (2) Rhesus
  - (3) Gibbon
  - (4) Orangutan
- 118.** Which of the following is the closer relative of man:-
- (1) Chimpanzee
  - (2) Gorilla
  - (3) Orangutan
  - (4) Gibbon
- 119.** Which of the following is correct order of the evolutionary history of man :-
- (1) Peking man, Homo sapiens, Neanderthal man, Cromagnon man
  - (2) Peking man, Neanderthal man, Homo sapiens, Cromagnon man
  - (3) Peking man, Heidelberg man, Neanderthal man, Cromagnon man
  - (4) Pekingman, Neanderthal man, Homo sapiens, Heidelberg man
- 120.** According to fossils which are discovered up to present time, origin and evolution of man was started from which country :
- (1) France
  - (2) Java
  - (3) Africa
  - (4) China
- 121.** The only ape found in India is :-
- (1) Orangutan
  - (2) Gorilla
  - (3) Gibbon
  - (4) Chimpanzee
- 122.** The banding pattern of chromosomes of 3 and 6 of human beings and chimpanzee shows that they had :
- (1) common origin
  - (2) different origin
  - (3) same number of chromosomes
  - (4) similar blood groups
- 123.** Which of the following ancestor of man was fond of painting and weapons making :
- (1) Neanderthal man
  - (2) Cromagnon man
  - (3) Java man
  - (4) Peking man
- 124.** The scientific name of Homo erectus erectus has; been given to :
- (1) Cromagnon man
  - (2) Neanderthal man
  - (3) Java ape man
  - (4) Peking man
- 125.** Closest ancestor to modern man was:
- (1) Neanderthal man
  - (2) Homo habilis
  - (3) Cro-magnon man
  - (4) Australopithecus
- 126.** The cranial capacity of Peking man was about :
- (1) 900 cc
  - (2) 1660 cc
  - (3) 1075 cc
  - (4) 1450 cc
- 127.** Ancestor of man who first stood erect was :
- (1) Australopithecus
  - (2) Cro-magnon man
  - (3) Java man
  - (4) Peking man

## ANSWER KEY

## EXERCISE-I (Conceptual Question)

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