

Total Ques: 90  
Duration : 1 hr

NEET 2018

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Agarwal Bandhu Gyan Kendra  
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NEET 2018 BIOLOGY

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- 1 Oxygen is not produced during photosynthesis by :  
(a) *Nostoc*  
(b) *Cycas*  
(c) Green sulphur bacteria  
(d) *Chara*
- 2 Which one of the following plants shows a very close relationship with a species of moth, where none of the two can complete its life cycle without the other ?  
(a) *Yucca* (b) Banana  
(c) *Hydrilla* (d) *Viola*
- 3 In which of the following forms is iron absorbed by plants ?  
(a) Ferrous  
(b) Free element  
(c) Ferric  
(d) Both ferric and ferrous
- 4 Which of the following elements is responsible for maintaining turgor in cells ?  
(a) Sodium (b) Potassium  
(c) Magnesium (d) Calcium
- 5 Pollen grains can be stored for several years in liquid nitrogen having a temperature of :  
(a)  $-80^{\circ}\text{C}$  (b)  $-196^{\circ}\text{C}$   
(c)  $-120^{\circ}\text{C}$  (d)  $-160^{\circ}\text{C}$
- 6 Double fertilization is :  
(a) Fusion of one male gamete with two polar nuclei  
(b) Fusion of two male gametes with one egg  
(c) Fusion of two male gametes of a pollen tube with two different eggs  
(d) Syngamy and triple fusion
- 7 What is the role of  $\text{NAD}^+$  in cellular respiration ?  
(a) It functions as an electron carrier  
(b) It is a nucleotide source for ATP synthesis  
(c) It functions as an enzyme  
(d) It is the final electron acceptor for anaerobic respiration
- 8 Select the *correct* match :  
(a)  $\text{F}_2 \times$  Recessive parent - Dihybrid cross  
(b) T.H. Morgan - Transduction  
(c) Ribozyme - Nucleic acid  
(d) G. Mendel - Transformation
- 9 Which of the following is commonly used as a vector for introducing a DNA fragment in human lymphocytes ?  
(a) Ti plasmid (b)  $\lambda$  phage  
(c) Retrovirus (d) pBR 322
- 10 Use of bioresources by multinational companies and organisations without authorisation from the concerned country and its people is called :  
(a) Biopiracy  
(b) Biodegradation  
(c) Bio-infringement  
(d) Bioexploitation
- 11 In India, the organisation responsible for assessing the safety of introducing genetically modified organisms for public use is :  
(a) Council for Scientific and Industrial Research (CSIR)  
(b) Research Committee on Genetic Manipulation (RCGM)  
(c) Indian Council of Medical Research (ICMR)  
(d) Genetic Engineering Appraisal Committee (GEAC)
- 12 The correct order of steps in Polymerase Chain Reaction (PCR) is :  
(a) Annealing, Extension, Denaturation  
(b) Denaturation, Extension, Annealing  
(c) Extension, Denaturation, Annealing  
(d) Denaturation, Annealing, Extension
- 13 A 'new' variety of rice was patented by a foreign company, though such varieties have been present in India for a long time. This is related to :  
(a) Sharbati Sonora  
(b) Lerma Rojo  
(c) Co-667  
(d) Basmati
- 14 Natality refers to :  
(a) Birth rate  
(b) Number of individuals leaving the habitat  
(c) Death rate  
(d) Number of individuals entering a habitat
- 15 World Ozone Day is celebrated on :  
(a) 21<sup>st</sup> April (b) 16<sup>th</sup> September  
(c) 5<sup>th</sup> June (d) 22<sup>nd</sup> April

- 16 Which of the following is a secondary pollutant ?  
 (a) CO<sub>2</sub> (b) SO<sub>2</sub>  
 (c) CO (d) O<sub>3</sub>

- 17 Niche is :  
 (a) the physical space where an organism lives  
 (b) the range of temperature that the organism needs to live  
 (c) all the biological factors in the organism's environment  
 (d) the functional role played by the organism where it lives

- 18 What type of ecological pyramid would be obtained with the following data ?  
 Secondary consumer : 120 g  
 Primary consumer : 60 g  
 Primary producer : 10 g  
 (a) Pyramid of energy  
 (b) Upright pyramid of numbers  
 (c) Inverted pyramid of biomass  
 (d) Upright pyramid of biomass

- 19 In stratosphere, which of the following elements acts as a catalyst in degradation of ozone and release of molecular oxygen ?  
 (a) Cl (b) Fe  
 (c) Carbon (d) Oxygen

- 20 Which of the following pairs is **wrongly** matched ?  
 (a) ABO blood grouping : Co-dominance  
 (b) OX type sex determination : Grasshopper  
 (c) Starch synthesis in pea : Multiple alleles  
 (d) T.H. Morgan : Linkage

- 21 Select the correct statement :  
 (a) Punnett square was developed by a British scientist  
 (b) Spliceosomes take part in translation  
 (c) Franklin Stahl coined the term "linkage"  
 (d) Transduction was discovered by S. Altman

- 22 The experimental proof for semiconservative replication of DNA was first shown in a :  
 (a) Bacterium (b) Plant  
 (c) Fungus (d) Virus

- 23 Select the **correct** match :  
 (a) Alfred Hershey and Martha Chase - TMV  
 (b) Matthew Meselson and F. Stahl - *Pisum sativum*  
 (c) Alec Jeffreys - *Streptococcus pneumoniae*  
 (d) Francois Jacob and Jacques Monod - *Lac operon*

- 24 Offsets are produced by :  
 (a) Mitotic divisions  
 (b) Parthenocarp  
 (c) Meiotic divisions  
 (d) Parthenogenesis

- 25 Which of the following flowers only once in its life-time ?  
 (a) Jackfruit (b) Mango  
 (c) Bamboo species (d) Papaya

- 26 Which of the following has proved helpful in preserving pollen as fossils ?  
 (a) Cellulosic intine  
 (b) Oil content  
 (c) Pollenkitt  
 (d) Sporopollenin

- 27 The two functional groups characteristic of sugars are :  
 (a) carbonyl and methyl  
 (b) carbonyl and phosphate  
 (c) hydroxyl and methyl  
 (d) carbonyl and hydroxyl

- 28 Which among the following is not a prokaryote ?  
 (a) *Mycobacterium* (b) *Nostoc*  
 (c) *Saccharomyces* (d) *Oscillatoria*

- 29 Which of the following is not a product of light reaction of photosynthesis ?  
 (a) NADH (b) NADPH  
 (c) ATP (d) Oxygen

- 30 Stomatal movement is not affected by :  
 (a) Light  
 (b) O<sub>2</sub> concentration  
 (c) Temperature  
 (d) CO<sub>2</sub> concentration

- 31 The Golgi complex participates in :  
 (a) Formation of secretory vesicles  
 (b) Respiration in bacteria  
 (c) Fatty acid breakdown  
 (d) Activation of amino acid

- 32 Which of the following is true for nucleolus ?  
 (a) It is a membrane-bound structure  
 (b) It takes part in spindle formation  
 (c) Larger nucleoli are present in dividing cells  
 (d) It is a site for active ribosomal RNA synthesis

- 33 The stage during which separation of the paired homologous chromosomes begins is :  
 (a) Diplotene (b) Diakinesis  
 (c) Pachytene (d) Zygotene

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- 34 Stomata in grass leaf are :  
 (a) Kidney shaped  
 (b) Rectangular  
 (c) Dumb-bell shaped  
 (d) Barrel shaped
- 35 Casparian strips occur in :  
 (a) Pericycle (b) Cortex  
 (c) Epidermis (d) Endodermis
- 36 Plants having little or no secondary growth are :  
 (a) Deciduous angiosperms  
 (b) Conifers  
 (c) Grasses  
 (d) Cycads
- 37 Pneumatophores occur in :  
 (a) Free-floating hydrophytes  
 (b) Carnivorous plants  
 (c) Halophytes  
 (d) Submerged hydrophytes
- 38 Sweet potato is a modified :  
 (a) Adventitious root  
 (b) Tap root  
 (c) Stem  
 (d) Rhizome
- 39 Secondary xylem and phloem in dicot stem are produced by :  
 (a) Vascular cambium  
 (b) Phellogen  
 (c) Apical meristems  
 (d) Axillary meristems
- 40 Which of the following statements is **correct** ?  
 (a) *Selaginella* is heterosporous, while *Salvinia* is homosporous  
 (b) Horsetails are gymnosperms  
 (c) Ovules are not enclosed by ovary wall in gymnosperms  
 (d) Stems are usually unbranched in both *Cycas* and *Cedrus*
- 41 Select the **wrong** statement :  
 (a) Mushrooms belong to Basidiomycetes  
 (b) Pseudopodia are locomotory and feeding structures in Sporozoans  
 (c) Cell wall is present in members of Fungi and Plantae  
 (d) Mitochondria are the powerhouse of the cell in all kingdoms except Monera
- 42 Winged pollen grains are present in :  
 (a) *Cycas* (b) Mango  
 (c) Mustard (d) *Pinus*

- 43 After karyogamy followed by meiosis, spores are produced exogenously in :  
 (a) *Alternaria* (b) *Agaricus*  
 (c) *Neurospora* (d) *Saccharomyces*
- 44 (1) (2) (3) (4)  
 (a) (iii) (ii) (i) (iv)  
 (b) (ii) (iv) (iii) (i)  
 (c) (i) (iv) (iii) (ii)  
 (d) (iii) (iv) (i) (ii)
- 45 Which one is **wrongly** matched ?  
 (a) Biflagellate zoospores - Brown algae  
 (b) Gemma cups - *Marchantia*  
 (c) Uniflagellate gametes - *Polysiphonia*  
 (d) Unicellular organism - *Chlorella*
- 46 Which of these statements is **incorrect** ?  
 (a) Glycolysis occurs in cytosol  
 (b) Glycolysis operates as long as it is supplied with NAD that can pick up hydrogen atoms  
 (c) Enzymes of TCA cycle are present in mitochondrial matrix  
 (d) Oxidative phosphorylation takes place in outer mitochondrial membrane
- 47 Nissl bodies are mainly composed of :  
 (a) DNA and RNA  
 (b) Nucleic acids and SER  
 (c) Proteins and lipids  
 (d) Free ribosomes and RER
- 48 Select the **incorrect** match :  
 (a) Allosomes - Sex chromosomes  
 (b) Submetacentric - L-shaped chromosomes  
 (c) Lampbrush - Diplotene bivalents  
 (d) Polytene - Oocytes of amphibians chromosomes
- 49 Which of the following events does not occur in rough endoplasmic reticulum ?  
 (a) Protein glycosylation  
 (b) Cleavage of signal peptide  
 (c) Protein folding  
 (d) Phospholipid synthesis
- 50 Which of the following terms describe human dentition ?  
 (a) Thecodont, Diphyodont, Heterodont  
 (b) Pleurodont, Monophyodont, Homodont  
 (c) Thecodont, Diphyodont, Homodont  
 (d) Pleurodont, Diphyodont, Heterodont

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- 51 Many ribosomes may associate with a single mRNA to form multiple copies of a polypeptide simultaneously. Such strings of ribosomes are termed as :
- Polyhedral bodies
  - Plastidome
  - Polysome
  - Nucleosome
- 52 Which one of these animals is not a homeotherm ?
- Cheilone*
  - Camelus*
  - Macropus*
  - Psittacula*
- 53 Identify the vertebrate group of animals characterized by crop and gizzard in its digestive system.
- Reptilia
  - Aves
  - Amphibia
  - Osteichthyes
- 54 Which of the following features is used to identify a male cockroach from a female cockroach ?
- Presence of caudal styles
  - Forewings with darker tegmina
  - Presence of a boat shaped sternum on the 9<sup>th</sup> abdominal segment
  - Presence of anal cerci
- 55 Which of the following organisms are known as chief producers in the oceans ?
- Diatoms
  - Cyanobacteria
  - Dinoflagellates
  - Euglenoids
- 56 Ciliates differ from all other protozoans in :
- having a contractile vacuole for removing excess water
  - using pseudopodia for capturing prey
  - using flagella for locomotion
  - having two types of nuclei
- 57 Which of the following animals does not undergo metamorphosis ?
- Tunicate
  - Moth
  - Earthworm
  - Starfish
- 58 Which of the following options correctly represents the lung conditions in asthma and emphysema, respectively ?
- Increased number of bronchioles; Increased respiratory surface
  - Increased respiratory surface; Inflammation of bronchioles
  - Inflammation of bronchioles; Decreased respiratory surface
  - Decreased respiratory surface; Inflammation of bronchioles

- 59 Match the items given in **Column-I** with those in **Column-II** and select the **correct** option given below :
- | <b>Column-I</b>     |            | <b>Column-II</b>                                  |  |
|---------------------|------------|---|--|
| (1) Tricuspid valve |            | (i) Between left atrium and left ventricle        |  |
| (2) Bicuspid valve  |            | (ii) Between right ventricle and pulmonary artery |  |
| (3) Semilunar valve |            | (iii) Between right atrium and right ventricle    |  |
| <b>(1)</b>          | <b>(2)</b> | <b>(3)</b>  |  |
| (a) (i)             | (iii)      | (ii)  |  |
| (b) (i)             | (ii)       | (iii)   |  |
| (c) (iii)           | (i)        | (ii)  |  |
| (d) (ii)            | (i)        | (iii)   |  |
- 60 Match the items given in **Column-I** with those in **Column-II** and select the **correct** option given below :
- | <b>Column-I</b>                |            | <b>Column-II</b>  |            |
|--------------------------------|------------|-------------------|------------|
| (1) Tidal volume               |            | (i) 2500-3000 mL  |            |
| (2) Inspiratory Reserve volume |            | (ii) 1100-1200 mL |            |
| (3) Expiratory Reserve volume  |            | (iii) 500-550 mL  |            |
| (4) Residual volume            |            | (iv) 1000-1100 mL |            |
| <b>(1)</b>                     | <b>(2)</b> | <b>(3)</b>        | <b>(4)</b> |
| (a) (iii)                      | (i)        | (iv)              | (ii)       |
| (b) (i)                        | (iv)       | (ii)              | (iii)      |
| (c) (iii)                      | (ii)       | (i)               | (iv)       |
| (d) (iv)                       | (iii)      | (ii)              | (i)        |
- 61 Which of the following is an amino acid derived hormone ?
- Ecdysone
  - Estradiol
  - Epinephrine
  - Estril
- 62 Which of the following structures or regions is **incorrectly** paired with its function ?
- Limbic system : consists of fibre tracts that interconnect different regions of brain; controls movement
  - Hypothalamus : production of releasing hormones and regulation of temperature, hunger and thirst
  - Medulla oblongata : controls respiration and cardiovascular reflexes
  - Corpus callosum : band of fibers connecting left and right cerebral hemispheres
- 63 The transparent lens in the human eye is held in its place by :
- ligaments attached to the iris
  - smooth muscles attached to the iris
  - ligaments attached to the ciliary body
  - smooth muscles attached to the ciliary body

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- 64 Which of the following hormones can play significant role in osteoporosis ?  
 (a) Progesterone and Aldosterone  
 (b) Estrogen and Parathyroid hormone  
 (c) Aldosterone and Prolactin  
 (d) Parathyroid hormone and Prolactin
- 65 Hormones secreted by the placenta to maintain pregnancy are :  
 (a) hCG, hPL, estrogens, relaxin, oxytocin  
 (b) hCG, hPL, progestogens, estrogens  
 (c) hCG, hPL, progestogens, prolactin  
 (d) hCG, progestogens, estrogens, glucocorticoids
- 66 The contraceptive 'SAHELI' :  
 (a) increases the concentration of estrogen and prevents ovulation in females  
 (b) is an IUD  
 (c) blocks estrogen receptors in the uterus, preventing eggs from getting implanted  
 (d) is a post-coital contraceptive
- 67 The difference between spermiogenesis and spermiation is :  
 (a) In spermiogenesis spermatozoa are formed, while in spermiation spermatids are formed  
 (b) In spermiogenesis spermatozoa from sertoli cells are released into the cavity of seminiferous tubules, while in spermiation spermatozoa are formed  
 (c) In spermiogenesis spermatids are formed, while in spermiation spermatozoa are formed  
 (d) In spermiogenesis spermatozoa are formed, while in spermiation spermatozoa are released from sertoli cells into the cavity of seminiferous tubules
- 68 The amnion of mammalian embryo is derived from :  
 (a) endoderm and mesoderm  
 (b) mesoderm and trophoblast  
 (c) ectoderm and mesoderm  
 (d) ectoderm and endoderm
- 69 Among the following sets of examples for divergent evolution, select the **incorrect** option :  
 (a) Heart of bat, man and cheetah  
 (b) Brain of bat, man and cheetah  
 (c) Forelimbs of man, bat and cheetah  
 (d) Eye of octopus, bat and man
- 70 Which of the following is **not** an autoimmune disease ?  
 (a) Rheumatoid arthritis  
 (b) Alzheimer's disease  
 (c) Psoriasis  
 (d) Vitiligo

- 71 In which disease does mosquito transmitted pathogen cause chronic inflammation of lymphatic vessels ?  
 (a) Ascariasis  
 (b) Ringworm disease  
 (c) Elephantiasis  
 (d) Amoebiasis
- 72 Conversion of milk to curd improves its nutritional value by increasing the amount of :  
 (a) Vitamin A (b) Vitamin B<sub>12</sub>  
 (c) Vitamin D (d) Vitamin E
- 73 The similarity of bone structure in the forelimbs of many vertebrates is an example of :  
 (a) Analogy  
 (b) Convergent evolution  
 (c) Homology  
 (d) Adaptive radiation
- 74 Which of the following characteristics represent 'Inheritance of blood groups' in humans ?  
 (1) Dominance  
 (2) Co-dominance  
 (3) Multiple allele  
 (4) Incomplete dominance  
 (5) Polygenic inheritance  
 (a) (1), (2) and (3)  
 (b) (2), (4) and (5)  
 (c) (2), (3) and (5)  
 (d) (1), (3) and (5)
- 75 Which one of the following population interactions is widely used in medical science for the production of antibiotics ?  
 (a) Mutualism (b) Parasitism  
 (c) Commensalism (d) Amensalism
- 76 Match the items given in Column-I with those in Column-II and select the **correct** option given below :
- | Column-I           |                       | Column-II                 |                     |
|--------------------|-----------------------|---------------------------|---------------------|
| (1) Eutrophication | (2) Sanitary landfill | (i) UV-B radiation        | (ii) Deforestation  |
| (3) Snow blindness | (4) Jhum cultivation  | (iii) Nutrient enrichment | (iv) Waste disposal |
| <b>(1)</b>         | <b>(2)</b>            | <b>(3)</b>                | <b>(4)</b>          |
| (a) (i)            | (iii)                 | (iv)                      | (ii)                |
| (b) (iii)          | (iv)                  | (i)                       | (ii)                |
| (c) (ii)           | (i)                   | (iii)                     | (iv)                |
| (d) (i)            | (ii)                  | (iv)                      | (iii)               |
- 77 All of the following are included in 'Ex-situ conservation' **except** :  
 (a) Sacred groves  
 (b) Botanical gardens  
 (c) Wildlife safari parks  
 (d) Seed banks

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- 78 In a growing population of a country :
- (a) reproductive individuals are less than the post-reproductive individuals
  - (b) reproductive and pre-reproductive individuals are equal in number
  - (c) pre-reproductive individuals are more than the reproductive individuals
  - (d) pre-reproductive individuals are less than the reproductive individuals

- 79 Which part of poppy plant is used to obtain the drug "Smack" ?
- (a) Latex
  - (b) Roots
  - (c) Flowers
  - (d) Leaves

- 80 All of the following are part of an operon *except* :
- (a) structural genes
  - (b) an enhancer
  - (c) an operator
  - (d) a promoter

- 81 A woman has an X-linked condition on one of her X chromosomes. This chromosome can be inherited by :
- (a) Only sons
  - (b) Only grandchildren
  - (c) Only daughters
  - (d) Both sons and daughters

- 82 According to Hugo de Vries, the mechanism of evolution is :
- (a) Saltation
  - (b) Phenotypic variations
  - (c) Multiple step mutations
  - (d) Minor mutations

- 83 AGGTATCGCAT is a sequence from the coding strand of a gene. What will be the corresponding sequence of the transcribed mRNA ?
- (a) UGGTUTCGCAT
  - (b) ACCUAUGCGAU
  - (c) AGGUAUCGCAU
  - (d) UCCAUAAGCGUA

- 84 Match the items given in **Column-I** with those in **Column-II** and select the *correct* option given below :

<b>Column-I</b>		<b>Column-II</b>
(1) Proliferative phase		(i) Breakdown of endometrial lining
(2) Secretory phase		(ii) Follicular phase
(3) Menstruation		(iii) Luteal phase
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
(a) (i)	(iii)	(ii)
(b) (ii)	(iii)	(i)
(c) (iii)	(ii)	(i)
(d) (iii)	(i)	(ii)

- 85 Match the items given in **Column-I** with those in **Column-II** and select the *correct* option given below :

<b>Column-I</b>		<b>Column-II</b>
(1) Glycosuria		(i) Accumulation of uric acid in joints
(2) Gout		(ii) Mass of crystallised salts within the kidney
(3) Renal calculi		(iii) Inflammation in glomeruli
(4) Glomerular nephritis		(iv) Presence of glucose in urine
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
(a) (i)	(ii)	(iii)
(b) (ii)	(iii)	(i)
(c) (iii)	(ii)	(iv)
(d) (iv)	(i)	(ii)

- 86 Match the items given in **Column-I** with those in **Column-II** and select the *correct* option given below :

<b>Column-I (Function)</b>	<b>Column-II (Part of Excretory System)</b>
(1) Ultrafiltration	(i) Henle's loop
(2) Concentration of urine	(ii) Ureter
(3) Transport of urine	(iii) Urinary bladder
(4) Storage of urine	(iv) Malpighian corpuscle
	(v) Proximal convoluted tubule
<b>(1)</b>	<b>(2)</b>
(a) (iv)	(i)
(b) (v)	(iv)
(c) (iv)	(v)
(d) (v)	(iv)

- 87 Which of the following is an occupational respiratory disorder ?
- (a) Silicosis
  - (b) Botulism
  - (c) Anthracis
  - (d) Emphysema

- 88 Calcium is important in skeletal muscle contraction because it :

- (a) activates the myosin ATPase by binding to it
- (b) detaches the myosin head from the actin filament
- (c) binds to troponin to remove the masking of active sites on actin for myosin
- (d) prevents the formation of bonds between the myosin cross bridges and the actin filament

- 89 Which of the following gastric cells indirectly help in erythropoiesis ?

- (a) Mucous cells
- (b) Goblet cells
- (c) Chief cells
- (d) Parietal cells

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90 Match the items given in **Column-I** with those in **Column-II** and select the *correct* option given below :

<b>Column-I</b>		<b>Column-II</b>
(1) Fibrinogen		(i) Osmotic balance
(2) Globulin		(ii) Blood clotting
(3) Albumin		(iii) Defence mechanism
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
(a) (i)	(ii)	(iii)
(b) (i)	(iii)	(ii)
(c) (iii)	(ii)	(i)
(d) (ii)	(iii)	(i)

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Test Booklet No.			Date			Paper Code			Paper Description	
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(1) c	(2) a	(3) c	(4) b	(5) b	(6) d	(7) a	(8) c	(9) c	(10) a	
(11) d	(12) d	(13) d	(14) a	(15) b	(16) d	(17) d	(18) c	(19) a	(20) c	
(21) a	(22) a	(23) d	(24) a	(25) c	(26) d	(27) d	(28) c	(29) a	(30) b	
(31) a	(32) d	(33) a	(34) c	(35) d	(36) c	(37) c	(38) a	(39) a	(40) c	
(41) b	(42) d	(43) b	(44) d	(45) c	(46) d	(47) d	(48) d	(49) d	(50) a	
(51) c	(52) a	(53) b	(54) a	(55) a	(56) d	(57) c	(58) c	(59) c	(60) a	
(61) c	(62) a	(63) c	(64) b	(65) b	(66) c	(67) d	(68) c	(69) d	(70) b	
(71) c	(72) b	(73) c	(74) a	(75) d	(76) b	(77) a	(78) c	(79) a	(80) b	
(81) d	(82) a	(83) c	(84) b	(85) d	(86) a	(87) a	(88) c	(89) d	(90) d	