PREVIOUS YEAR PAPER

UP PGT 2016 — Biology (Series A)

UP PGT · 1 or 2 February 2019

125 questions · +3.4 for a correct answer, −0 for a wrong one · 120 minutes

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Questions from the U.P. Secondary Education Services Selection Board's paper of 1 or 2 February 2019. Each question is followed by its answer, and the answer key is repeated on the last page.

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Biology

1. Glucagon stimulates
   (a) Increase of breakdown of glycogen to blood sugar
   (b) Formation of glucose from amino acids
   (c) Rise of blood sugar level
   (d) All of these
   Answer: —

2. First United Nations Conference on Human Environment was held in Stockholm in the year
   (a) 1972
   (b) 1986
   (c) 1992
   (d) 2000
   Answer: (a)

3. Silica for the formation of siliceous spicules is
   (a) Synthesized by the sponge
   (b) Provided by symbiotic algae
   (c) Supplied by bacteria
   (d) Extracted by the sponge from the sea water
   Answer: (d)

4. Which of the following plants produce green spores ?
   (a) Psilotum
   (b) Lycopodium
   (c) Riccia
   (d) Equisetum
   Answer: (d)

5. Aerial respiration in pila occurs from
   (a) Pulmonary sac
   (b) Mantle
   (c) Ctenidium
   (d) Branchiae
   Answer: (a)

6. Naturally occuring enzyme lysozyme is found in
   (a) Saliva
   (b) Tears
   (c) Both (A) and (B)
   (d) None of the above
   Answer: (c)

7. When the expression of a gene is changed due to presence of another gene, it is called as
   (a) Overdominance
   (b) Lethal genes
   (c) Selfish gene
   (d) Epistasis
   Answer: (d)

8. Elettaria Cardamomum belongs to
   (a) Dicot
   (b) Monocot
   (c) Conifer
   (d) Monochlamydeae
   Answer: (b)

9. Root-Knot disease caused by
   (a) Mycoplasma
   (b) Nematodes
   (c) Virus
   (d) Fungi
   Answer: (b)

10. Metamorphosis in cockroach is regulated mainly by
   (a) Corpora cardiaca
   (b) Prothora gland
   (c) Corpora allata
   (d) Brain
   Answer: (c)

11. Which genetically engineered microbe used in production of human insulin ?
    (a) Bacillus thuringiensis
    (b) Rhizobium meliloti
    (c) Escherichia coli
    (d) Pseudomonas putida
    Answer: (c)

12. 'Mother of Pearl' is known as
    (a) Conchyolin
    (b) Calcite
    (c) Nacre
    (d) None of these
    Answer: (c)

13. A botanical name in which specific epithet repeats exactly the generic name is called
    (a) Tautonym
    (b) Synonym
    (c) Homonym
    (d) Autonym
    Answer: (a)

14. Montane zone of Western Himalayan Floristic regi extends from
    (a) 1,000 to 5,000 ft. above sea level
    (b) 5,000 to 10,000 ft. above sea level
    (c) 5,000 to 11,675 ft. above sea level
    (d) 6,000 to 11,675 ft. above sea level
    Answer: (c)

15. Some ecologists prefer to call the green plants as "transducers" in place of
    (a) Converters
    (b) Consumers
    (c) Producers
    (d) Pioneers
    Answer: (c)

16. Ozone is present in large concentration in
    (a) Ionosphere
    (b) Stratosphere
    (c) Arctic region
    (d) Antarctic region
    Answer: (b)

17. Angular divergence in pentastichous phyllotaxy is

(a) 1/3 of 360°

(b) 2/5 of 360°

(c) 1/2 of 360°

(d) 1/4 of 360°

Answer: (b)

18. Synandrous stamens are found in family

(a) Asteraceae

(b) Malvaceae

(c) Cucurbitaceae

(d) Papilionaceae

Answer: (c)

19. Consider the following statements :
1. All fishes lay eggs.
2. All birds do not fly.
3. All lizards are poisonous.
4. Poison of viper is neurotoxic.
5. None of the mammals are poisonous
Of these statements :

(a) Only 1 and 2 are correct

(b) Only 2, 3 and 4 are correct

(c) Only 2 and 5 are correct

(d) Only 2 is correct

Answer: (d)

20. Stain used for Gram staining is

(a) Aniline Blue

(b) Cotton Blue

(c) Crystal Violet

(d) Trypan Blue

Answer: (c)

21. Custard-apple (Annona squamosa) is a

(a) Composite fruit

(b) Simple fruit

(c) Aggregate fruit

(d) Syconus fruit

Answer: (c)

22. Amphiphloic siphonostele is found in
    (a) Lycopodium
    (b) Ephedra
    (c) Selaginella
    (d) Marsilea
    Answer: (d)

23. Duplication of which region is expressed as bar-eye character in Drosophila ?
    (a) 16 A of Y- chromosome
    (b) 16 A of X- chromosome
    (c) 18 A of Y- chromosome
    (d) 18 B of Y- chromosome
    Answer: (b)

24. Isobilateral arrangement of spores in spore-tetrad is reported in which plant ?
    (a) Riccia personii
    (b) Marchantia Palmata
    (c) Pellia epiphylla
    (d) Anthoceros laevis
    Answer: (a)

25. In angiosperms, the megasporangium is represen by
    (a) Carpel
    (b) Ovary
    (c) Ovule
    (d) Embryosac
    Answer: (c)

26. Methaemoglobinaemia is caused by
    (a) Nitrate fertilizers
    (b) Lead toxicity
    (c) Fluorides in drinking water
    (d) Oxitocin
    Answer: (a)

27. Origin of seed-habit can be traced from which plant ?
    (a) Lycopodium
    (b) Selaginella
    (c) Cycas
    (d) Pinus
    Answer: (b)

28. The blood capillaries of intestinal villi can not absorb
    (a) Fatty acid and glycerol
    (b) Glucose
    (c) Salts
    (d) Amino acids
    Answer: (a)

29. Phenomenon of 'triple fusion' is reported from
    (a) Chlamydomonas
    (b) Oedogonium
    (c) Fucus
    (d) Padina
    Answer: (b)

30. Herkogamy is found in
    (a) Cotton
    (b) Calotropis
    (c) Marigold
    (d) Bajra
    Answer: (b)

31. Fucoxanthin is main pigment in
    (a) Scytonema
    (b) Chara
    (c) Ectocarpus
    (d) Volvox
    Answer: (c)

32. Gynobasic style is found in
    (a) Asteraceae
    (b) Lamiaceae
    (c) Ranunculaceae
    (d) Rosaceae
    Answer: (b)

33. Pettenkoffer's apparatus is used to determine the rate of
    (a) Transpiration
    (b) Photosynthesis
    (c) Respiration
    (d) Photo-respiration
    Answer: (c)

34. All flightless birds belong to super order
    (a) Odontognathae
    (b) Impennae
    (c) Ratitae
    (d) None of these

    Answer: (c)

35. Nilgiri Biosphere reserve is located in
    (a) Tamil Nadu only
    (b) Karnataka and Kerala only
    (c) Tamil Nadu and Kerala only
    (d) Tamil Nadu, Kerala and Karnataka only

    Answer: (d)

36. Modified form of zoea larva is
    (a) Mysis
    (b) Alima
    (c) Megalopa
    (d) Cypris

    Answer: (a)

37. Completely free movement of fishes between fres nd marine water without the purpose of breeding is called as
    (a) Catadromous migration
    (b) Amphidromas migration
    (c) Anadromous migration
    (d) None of these

    Answer: (b)

38. The ratio between experimental and observed result is represented by
    (a) Chi-square
    (b) Theta value
    (c) Variance ratio
    (d) None of these

    Answer: (a)

39. Synaptonemal complex is found in which stage of Meiosis ?
    (a) Zygotene of prophase I
    (b) Pachytene of prophase I
    (c) Anaphase I
    (d) Anaphase II

    Answer: (a)

40. Which year declared as “International Year of Biodiversity” ?
    (a) 2008
    (b) 2009
    (c) 2010
    (d) 2011
    Answer: (c)

41. The average weight of which of the following woods is heaviest ?
    (a) Pine
    (b) Deodar
    (c) Shisham
    (d) Sal
    Answer: (d)

42. Which of the following is involved in the metamorphosis of insects ?
    (a) Only Juvenile hormone
    (b) Only ecdysone
    (c) Both Juvenile hormone and ecdysone
    (d) Pheromones
    Answer: (c)

43. Which of the following is the smallest RNA ?
    (a) m-RNA
    (b) r-RNA
    (c) t-RNA
    (d) hn-RNA
    Answer: (c)

44. Family cucurbitaceae belongs to order
    (a) Ficoidales
    (b) Passiflorales
    (c) Sapindales
    (d) Malveles
    Answer: (b)

45. The micronucleus of Paramecium is
    (a) diploid
    (b) polyploid
    (c) non-reproductive
    (d) the main source of RNA
    Answer: (a)

46. The enzyme fatty acid synthetase complex is made up of
    (a) 5 units
    (b) 6 units
    (c) 7 units
    (d) 8 units
    Answer: (d)

47. Conjoint, bicollateral, open vascular bundles are found in stem of
    (a) Cucurbitaceae
    (b) Rosaceae
    (c) Malvaceae
    (d) Ranunculaceae
    Answer: (a)

48. The book 'Origin of Species' was published in
    (a) 1809
    (b) 1858
    (c) 1859
    (d) 1956
    Answer: (c)

49. In the Seismonastic movement of Mimosa pudica ves involved
    (a) Osmotic pressure
    (b) Turgor pressure
    (c) Wall pressure
    (d) Diffusion pressure deficit
    Answer: (b)

50. Oxygen-Haemoglobin dissociation curve will shift to right on decrease of
    (a) CO_2 concentration
    (b) Temperature
    (c) pH
    (d) Acidity
    Answer: (c)

51. Which of the following is non-coding RNA ?
    (a) mic RNA
    (b) Hn RNA
    (c) Sno RNA
    (d) All given above
    Answer: (d)

52. Bladder worm is found in
    (a) Human muscles
    (b) Muscles of pig or cow
    (c) Human faces
    (d) Soil
    Answer: (b)

53. All organisms were classified into eight kingdoms of two empires by
    (a) R. H. Whittakar
    (b) Haeckel
    (c) Woese et. al.
    (d) Cavalier-Smith
    Answer: (d)

54. Primitive streak in development of chick embryo is formed after incubation of
    (a) 18 hours
    (b) 16 hours
    (c) 20 hours
    (d) 22 hours
    Answer: (a)

55. Which of the following genus has been divided into two sub-genera named Haploxylon and Diploxylon
    (a) Cycas
    (b) Pinus
    (c) Ephedra
    (d) Psilotum
    Answer: (b)

56. Which of the following is not a halophyte ?
    (a) Distichlis striata
    (b) Artemisia tridentata
    (c) Rhizophora
    (d) Eichhornia crassipes
    Answer: (d)

57. Which era is regarded as the 'Age of Mammals' ?
    (a) Precambrian
    (b) Palaeozoic
    (c) Mesozoic
    (d) Coenozoic
    Answer: (d)

58. Pyramid of energy in pond ecosystem is always
    (a) Inverted
    (b) Firstly inverted then upright
    (c) Upright only
    (d) Any of the above
    Answer: (c)

59. Xenobiotics refers to
    (a) Endogenous poisons
    (b) Antibodies
    (c) Vaccines
    (d) Exogenous poisons
    Answer: (d)

60. Primary productivity is maximum in
    (a) Tropical rain forests
    (b) Tropical grassland
    (c) Temperate forests
    (d) Monsoon forests
    Answer: (a)

61. One fibril of cell wall is made-up of
    (a) 20 microfibrils
    (b) 100 microfibrils
    (c) 250 microfibrils
    (d) 50 microfibrils
    Answer: (c)

62. The Glomerular content of Proximal tubule in comparison with blood plasma is
    (a) Isotonic urine
    (b) Hypotonic urine
    (c) Hypertonic urine
    (d) None of these
    Answer: (a)

63. What is called as “Reverse Genetics” approach ?
    (a) From gene to enzyme
    (b) From DNA to phenotype
    (c) From phenotype to DNA
    (d) From RNA to DNA
    Answer: (b)

64. Who coined the term ecotype ?
(a) Odum
(b) Turessan
(c) Tansley
(d) Warming
Answer: (b)

65. In poisonous snakes, fangs are modified
(a) Maxillary teeth
(b) Mandibular teeth
(c) Molar teeth
(d) None of these
Answer: (a)

66. Which of the following blot procedures is used for the detection of DNA ?
(a) Northern blot
(b) Southern blot
(c) Western blot
(d) South-western blot
Answer: (b)

67. Viviparity generally occurs in
(a) Wuchereria
(b) Ancylostoma
(c) Enterobius
(d) Trichuris
Answer: (a)

68. Tehri Dam is constructed on which river ?
(a) Yamuna
(b) Ram Ganga
(c) Bhagirathi
(d) Alaknanda
Answer: (c)

69. Which of the following rule explains that the extremeties such as tails, legs and horn of animals are shorter in colder regions
(a) Bergman's rule
(b) Glogan's rule
(c) Jordan's rule
(d) Allen's rule
Answer: (d)

70. Which of the following is related to the study of phylogenetic tree ?
(a) Idiogram
(b) Electropherogram
(c) Cladogram
(d) Chromatogram
Answer: (c)

71. Which of the following properties of Type II restriction endonucleases make them very useful in the field of genetic engineering ?
(a) They cleave DNA within their recognition sequence
(b) They require no ATP
(c) They recognize a palindomic sequence of 4 to 6 bp long nucleotides
(d) All of the above
Answer: (d)

72. A symport system moves
(a) One type of molecules unidirectionally
(b) Two solutes unidirectionally
(c) Two types of molecules in opposite directions
(d) One type of molecules bidirectionally
Answer: (b)

73. Which of the following aquatic biomes has the hi st primary productivity ?
(a) Swamps
(b) Coral reefs
(c) Estuary
(d) None of the above
Answer: (b)

74. "Blue baby syndrome" caused by impure water of
(a) Arsenic
(b) Cadmium
(c) Nitrate
(d) Mercury
Answer: (c)

75. Making of a web by the spider is an example of
(a) Fixed action pattern
(b) Imprinting
(c) Learned behaviour
(d) Releaser
Answer: (a)

76. A radially symmetrical invertebrate animal, with differentiation of tissues only, will be placed in
    (a) Porifera
    (b) Cnidaria
    (c) Platyhelminthes
    (d) Echinodermata

    Answer: (b)

77. PCR cycle is also known as
    (a) C2 cycle
    (b) C3 cycle
    (c) Kreb cycle
    (d) EMP pathway

    Answer: (b)

78. Plastids that synthesize and store fat are
    (a) Eoplasts
    (b) Etioplasts
    (c) Elaioplasts
    (d) Gerontoplasts

    Answer: (c)

79. The alkaloid reserpine is contained in the roots of
    (a) Papaver somniferum
    (b) Cinchona officinalis
    (c) Rauvolfia serpentina
    (d) All the above

    Answer: (c)

80. In plants Agrobacterium rhizogenes causes
    (a) Root Rot
    (b) Root Proliferation
    (c) Tumor Formation
    (d) Nodule Formation

    Answer: (b)

81. Milk protein Casein is coagulated by
    (a) Pepsin
    (b) Trypsin
    (c) Rennin
    (d) Renin

    Answer: (c)

82. Plants with latex and unisexual Flowers are found in
    (a) Ranunculaceae
    (b) Rutaceae
    (c) Amaranthaceae
    (d) Euphorbiaceae
    Answer: (d)

83. In bony fish, reptiles and birds the cleavage is
    (a) Meroblastic superficial
    (b) Holoblastic unequal
    (c) Meroblastic discoidal
    (d) Holoblastic radial
    Answer: (c)

84. Smallpox is caused by
    (a) Variola
    (b) Coxiella
    (c) Aedes
    (d) Francissella
    Answer: (a)

85. Vessels are found in
    (a) Pinus
    (b) Ephedra
    (c) Cycas
    (d) None of the above
    Answer: (b)

86. Axolotl larva exhibits
    (a) Neoteny only
    (b) Paedogenesis only
    (c) Both neoteny and paedogenesis
    (d) Eutely
    Answer: (c)

87. Which one is commonly called as Reindeer moss
    (a) Cladonia rengiferina
    (b) Funaria hygrometrica
    (c) Sphagnum khasiana
    (d) Sphagnum ceylonicum
    Answer: (a)

88. Four kinds of skin colours are found in rabbits namely – albino, himalayan albino, agouti and chinchilla because a gene can have

(a) Incomplete dominance
(b) A pair of mutant isoalleles
(c) Less than two allelomorphs
(d) More than two allelomorphs

Answer: (d)

89. Which of the following process is related to soil formation ?

(a) Laterization
(b) Podosolization
(c) Gleization
(d) All of the above

Answer: (d)

90. Which statement is true ?

(a) In chordates, blood flows anteriorly in Dorsal Blood Vessels
(b) In chordates, blood flows posteriorly in Dorsal Blood Vessels
(c) In invertebrates, blood flows posteriorly in Dorsal Blood Vessels
(d) None of the above

Answer: (b)

91. In the region of sarcomere where the actin and myosin filaments overlap, which of the following number of actin filaments surrounds each myosin filament ?

(a) 3
(b) 6
(c) 9
(d) 12

Answer: (b)

92. In gram-negative bacteria the basal body consists of a central core equipped with

(a) L and P rings on inner side
(b) M and S rings on outer side
(c) L and P rings on outer side and S and M rings on inner side
(d) L and P rings on inner side and S and M rings on outer side

Answer: (c)

93. Ventricular systole is stimulated by

(a) SA Node
(b) AV Node
(c) Pulmonary valve
(d) AV aperture

Answer: (b)

94. In philadelphia chromosome, the translocation occurs between chromosomes
    (a) 9 and 22
    (b) 7 and 17
    (c) 10 and 21
    (d) 6 and 16

    Answer: (a)

95. Placenta in mammal is formed by
    (a) Allantois
    (b) Amnion
    (c) Chorion
    (d) Both (A) and (C)

    Answer: (c)

96. Inner ear of Agnatha have only
    (a) One semicircular canal
    (b) Two semicircular canal
    (c) Three semicircular canal
    (d) None of these

    Answer: —

97. Father of Indian Plant Embryology is
    (a) Prof. Birbal Sahni
    (b) Prof. R. P. Roy
    (c) Prof. M. O. P. Iyengar
    (d) Prof. Panchanan Maheshwari

    Answer: (d)

98. What is common between earthworm, leech and centipedes ?
    (a) They have malpighian tubules
    (b) They have ventral nerve cord
    (c) They are hermaphrodite
    (d) They have no legs

    Answer: (b)

99. Which one is not a larval stage of star fish ?
    (a) Planula
    (b) Dipleurula
    (c) Bipinnaria
    (d) Brachiolaria

    Answer: (a)

100. Match List – I with List – II and select the correct answer using the codes given below :
List-I (Threatened categories)
a. Endangered (E)
b. Vulnerable (V)
c. Rare (R)
d. Out of danger (O)
List-II (Representation in Red data book)
1. White sheets
2. Amber sheets
3. Green sheets
4. Red sheets
Codes :

(a) a-4, b-2, c-1, d-3
(b) a-4, b-2, c-3, d-1
(c) a-3, b-2, c-1, d-4
(d) a-1, b-3, c-4, d-2

Answer: (a)

101. Which of the following immunoglobulin molecules is largest ?

(a) IgA
(b) IgM
(c) IgD
(d) IgE

Answer: (b)

102. Apoplast-symplast concept was giver

(a) E. Munch
(b) Rabinowitch
(c) Zelitch
(d) Bose

Answer: (a)

103. Androgynophore is present in

(a) Cleome gynandra
(b) Mussaenda frondosa
(c) Ravenala madagascarlensis
(d) None of the above

Answer: (a)

104. In which, adaptation to aquatic life is secondary ?

(a) Whales
(b) Seals
(c) Porpoises
(d) All of the above

Answer: (d)

105. Which one of the following foetal membranes functions as embryonic urinary bladder ?
(a) Allantois
(b) Yolk sac
(c) Amnion
(d) Chorion
Answer: (a)

106. Nucleus is absent in
(a) Sieve tubes
(b) Companian cells
(c) Phloem parenchyma
(d) None of the above
Answer: (a)

107. In invertebrates, the haemoglobin is present in
(a) Erythrocytes
(b) Leucocytes
(c) Blood plasma
(d) Thrombocytes
Answer: (c)

108. Exogenous poisons are those that
(a) enter the organism from outer environment
(b) work outside the body of the organism
(c) are produced by one organism and [illegible]e other organism
(d) are produced inside the body fluid
Answer: (a)

109. Longest cell of plant kingdom is found in
(a) Ephedra
(b) Chara
(c) Ectocarpus
(d) Marchantia
Answer: (b)

110. Find the odd man out.
(a) LD50
(b) LC50
(c) EC50
(d) LE50
Answer: (d)

111. In which species of chlamydomonas the cells of palmella stage develop haematochrome and become non-motile thick walled hypnospores

(a) C. caudata
(b) C. eugametos
(c) C. kleinii
(d) C. nivalis

Answer: (d)

112. Capitulum inflorescence is found in

(a) Ageratum
(b) Hibiscus
(c) Cicer
(d) Plumeria

Answer: (a)

113. RL model of DNA was suggested by

(a) M. H. F. Wilkins
(b) H.G. Khorana
(c) Sasisekharan
(d) Chargaff

Answer: (c)

114. Which one is called a birth hormone ?

(a) Vasopressin
(b) Pancreozymin
(c) Oxitocin
(d) Progesteron

Answer: (c)

115. In which of the following family C3, C4 and CAM plant species are found ?

(a) Crassulaceae
(b) Cactaceae
(c) Poaceae
(d) Euphorbiaceae

Answer: (d)

116. Which of the following diseases is caused by protozoa, bacteria and virus in that sequence ?

(a) Malaria, mumps and typhus
(b) Amoebiasis, polio and tetanus
(c) Sleeping sickness, Diphtheria and Hepatitis B
(d) Yellow fever, syphilis and influenza

Answer: (c)

117. Mitochondrial DNA of human cells is not
(a) Naked
(b) Double-stranded
(c) Circular
(d) Of paternal origin
Answer: (d)

118. In which genus seta elongates upto 50 mm and becomes almost transparent at maturity ?
(a) Marchantia
(b) Pellia
(c) Funaria
(d) Sphagnum
Answer: (b)

119. Which of the following glycosidic bond is found in sucrose ?
(a) α1 – 4
(b) β1 – 4
(c) α1 – β2
(d) α1 – 6
Answer: (c)

120. Which of the following represents the probability of an event which is certain ?
(a) P = 1
(b) P = 10
(c) P = 50
(d) P = 100
Answer: (a)

121. The developing fruit of Cocos nucifera contains milky fluid. It is
(a) Nuclear endosperm
(b) Liquid syncytium
(c) Solution of unknown morphological nature
(d) Both (A) and (B) are correct
Answer: (d)

122. One Haemoglobin (Hb) molecule carries
(a) 4 molecules of O2
(b) 3 molecules of O2
(c) 2 molecules of O2
(d) 1 molecule of O2
Answer: (a)

123. The process of determination of the sequence of genes on a chromosome is termed

(a) Gene localization

(b) Gene sequencing

(c) Chromosomal mapping

(d) DNA sequencing

Answer: (c)

124. Double circulation of blood in mammals refer to

(a) Paired arteries

(b) Paired veins

(c) The blood circulates twice in heart as quickly

(d) The process is completed in two turns, one from heart to lung and back to the rest of body from heart

Answer: (d)

125. The food chain that starts from plants and goes from smaller to larger animals is

(a) Detritus food chain

(b) Parasitic food chain

(c) Predator food chain

(d) Saprophytic food chain

Answer: (c)

Answer key

Answer key from the U.P. Secondary Education Services Selection Board's official answer key for this sitting. "—" means the key gave none.

Biology

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