PREVIOUS YEAR PAPER

DSSSB Technical Assistant (Pharmacy) 2021 — 2 August 2021

DSSSB Other Posts · 2 August 2021

167 of the paper's 200 questions · +1 for a correct answer, −0.25 for a wrong one · 120 minutes

Left out of the original paper: 33 (any question that needs a figure, a symbol or formatting we cannot show, or whose text did not read back cleanly from the booklet).

Questions from the Delhi Subordinate Services Selection Board's paper of 2 August 2021. Each question is followed by its answer, and the answer key is repeated on the last page.

Take it as a timed practice test: exambharo.com/dsssb-other-posts/previous-year-papers/dsssb-other-posts-2021-technical-assistant-pharmacy-2-aug/

General Awareness

1. The Jat Jatin dance is a popular folk dance from the Indian state of _____.
   (a) West Bengal
   (b) Himachal Pradesh
   (c) Assam
   (d) Bihar
   Answer: (d)

2. Puthandu is New Year day festival for the people o amil Nadu. It is celebrated in the month of _____.
   (a) April
   (b) June
   (c) January
   (d) December
   Answer: (a)

3. As announced in the Budget 2021, _____ perishable products will be included in the 'Operation Green Scheme'.
   (a) 18
   (b) 22
   (c) 24
   (d) 29
   Answer: (b)

4. Andhra Bank and Corporation Bank of India were merged with _____ in 2021.
   (a) Union Bank of India
   (b) Canara Bank
   (c) Indian Bank
   (d) Punjab National Bank
   Answer: (a)

5. Which among the following vitamins is also known as ‘Folic Acid’?
   (a) B3
   (b) B12
   (c) B7
   (d) B9
   Answer: (d)

6. Which among the following animal kingdoms is also known as ‘comb jellies’?
   (a) Ctenophora
   (b) Platyhelminthes
   (c) Aschelminthes
   (d) Annelida
   Answer: (a)

7. Bangladesh does NOT share it's boundary with which of the following states?
   (a) Assam
   (b) Tripura
   (c) West Bengal
   (d) Sikkim
   Answer: (d)

8. The Bosphorus Strait joins _____ and Sea of M[illegible]ara.
   (a) Red Sea
   (b) Black Sea
   (c) Caspian Sea
   (d) Mediterranean Sea
   Answer: (b)

9. The Champaran Satyagraha of 1917 was a farmer's uprising that took place in _____.
   (a) Maharashtra
   (b) West Bengal
   (c) Bihar
   (d) Odisha
   Answer: (c)

10. Who was known as the 'Tiger of Mysore'?
   (a) Haidar Ali
   (b) Tipu Sultan
   (c) Adi Yaduraya Wodeyar
   (d) Rani Channamma
   Answer: (b)

11. When did Alivardi Khan, the Nawab of Bengal, died?

(a) 1763
(b) 1761
(c) 1752
(d) 1756

Answer: (d)

12. 'Sunny Days' is an autobiography of which of the following person?

(a) Sunil Gavaskar
(b) Mahendra Singh Dhoni
(c) Kapil Dev
(d) Virat Kohli

Answer: (a)

13. Who among the following won the 'Best Music Album' in the Filmfare Award 2021?

(a) A.R. Rahman
(b) Shankar Ehsaan Loy
(c) Pritam
(d) Sonu Nigam

Answer: (c)

14. Which among the following states decided to laun Oxi-van' in June 2021?

(a) Rajasthan
(b) Assam
(c) Haryana
(d) Gujarat

Answer: (c)

15. India and _____ signed Memorandum of Understanding (MoU) on cooperation on domestic worker recruitment on June 10, 2021.

(a) Saudi Arabia
(b) Iraq
(c) Iran
(d) Kuwait

Answer: (d)

16. _____ has partnered with Telangana government to lead "Medicines from the Sky" project in June 2021.

(a) Flipkart
(b) Amazon
(c) Google
(d) Reliance

Answer: (a)

17. The first Interim National Government was constituted on 2nd September, 1946. It was led by _____.

(a) Mahatma Gandhi
(b) Lala Lajpat Rai
(c) Bal Gangadhar Tilak
(d) Jawaharlal Nehru

Answer: (d)

18. Part _____ of the Indian Constitution deals with Elections.

(a) XV
(b) XIV
(c) XIX
(d) XX

Answer: (a)

19. Who among the following holds the record of most fours in the One Day Internationals (ODI)?

(a) Virender Sehwag
(b) Virat Kohli
(c) Ricky Ponting
(d) Sachin Tendulkar

Answer: (d)

20. Who among the following won the Men's Singles at the Serbia Open 2021?

(a) Matteo Berrettini
(b) Aslan Karatsev
(c) Andreas Seppi
(d) Benoît Paire

Answer: (a)

General Ability

22. Complete the following series. c_y_ _cy_c_yz

(a) czczc
(b) zcczc
(c) cczcc
(d) czczz

Answer: (a)

23. Out of the given options, three are similar in a certain manner. However, one option is NOT like the other three. Select the option which is different from the rest.

(a) Rectangle
(b) Rhombus
(c) Trapezium
(d) Cuboid

Answer: (d)

24. Out of the given options, select the word which CANNOT be formed using the letters of the word.
RECOGNITION

(a) IGNITE

(b) NATION

(c) CORE

(d) TONER

Answer: (b)

25. Select the option that is related to the third term on the same basis as the second term is related to the first term.
Whale : Mammal :: Rat : ?

(a) Reptile

(b) Rodent

(c) Mollusca

(d) Nocturnal

Answer: (b)

26. Select the option that is related to the third term on the same basis as the second term is related to the first term.
CLOCK : 44 :: TRUMPET : ?

(a) 102

(b) 121

(c) 111

(d) 113

Answer: (d)

27. If ‘eraser’ is ‘scale’, ‘scale’ is ‘sharpener’, ‘sharpener’ is ‘pin’, ‘pin’ is ‘bag’ and ‘bag’ is ‘pencil’. What is used to erase something?

(a) scale

(b) pencil

(c) eraser

(d) pen

Answer: (a)

28. In a certain code language, 'pul hir fin' means good sweet mango, 'tie dip sig' means beautiful white lily, 'sig to fin' means lily and mango. What is the code for 'and'?

(a) pul

(b) to

(c) fin

(d) sig

Answer: (b)

29. Lalu is the father of Neela and Pankaj. Pankaj is the son of Lalu, Neela is not the son of Lalu. How is Neela related to Lalu?

(a) Daughter

(b) Mother

(c) Son

(d) Sister

Answer: (a)

30. Naman is taller than Pulkit but not as tall as Mahesh. Rita is taller than Naren but not as tall as Pulkit. Who is the tallest among them?

(a) Mahesh

(b) Pulkit

(c) Naren

(d) Naman

Answer: (a)

31. In the question two statements are given, followed by two conclusions, I and II. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.
Statement I: Some pears are mangoes.
Statement II: Some mangoes are apples.
Conclusion I: Some pears are apples.
Conclusion II: No pears are apples.

(a) Only conclusion I follows

(b) Only conclusion II follows

(c) Both conclusion I and II follow

(d) Either conclusion I or II follows

Answer: (d)

32. In the question, there are two statements given, labelled as Assertion (A) and Reason (R). You have to choose the correct alternative from the given options.
Assertion (A): River Narmada flows westward.
Reason (R): Narmada drains into the Bay of Bengal.

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true but R is not the correct explanation of A.

(c) A is true but R is false.

(d) A is false but R is true.

Answer: (c)

33. Out of the given options, three are similar in a certain manner. However, one option is NOT like the other three. Select the option which is different from the rest.

(a) 28

(b) 65

(c) 216

(d) 126

Answer: (c)

Arithmetic Ability

41. If 38709/3.3 = 11730, then what will be 387.09/0.33?

(a) 117.3
(b) 11730
(c) 1173
(d) 1173000

Answer: (c)

42. The greatest number of 8 digits that is divisible by 5, 25, 30 and 40 is:

(a) 99999600
(b) 9999999
(c) 99999000
(d) 99998400

Answer: (a)

43. A discount of 25% on a article is same as the discount of 20% on second article. What is the lowest possible sum of the mark prices of the two articles?

(a) Rs. 5
(b) Rs. 9
(c) Rs. 4
(d) Rs. 10

Answer: (b)

44. What percentage of numbers between 1 to 50 have 5 in the units place?

(a) 5%
(b) 10%
(c) 15%
(d) 20%

Answer: (b)

45. The population of a village increased from 50000 to 75000 in 15 years. What is the annual increase in the population?

(a) 50%
(b) 3.33%
(c) 66.67%
(d) 5%

Answer: (b)

46. 'A' buys a second hand cycle at Rs. 1200 and spends 150 in it's repair. If he sells the cycle at 1550, what will be his gain percentage?

(a) 29.17%

(b) 31%

(c) 14.81%

(d) 25%

Answer: (c)

47. The profit percentage is same as the loss percentage when the article is sold at Rs. 1800 and Rs. 1500 respectively. At what price should the article be sold to get a profit of 20%?

(a) Rs. 1650

(b) Rs. 1750

(c) Rs. 1800

(d) Rs. 1980

Answer: (d)

48. The fifth proportional to 5, 10, 15, 20 is:

(a) 35

(b) 1

(c) 30

(d) 25

Answer: (d)

49. The seats of maths, biology, history are in the r[illegible] of 2 : 3 : 1. The seats are increased by 20%, 30%, 40% respectively. What is the new r[illegible]?

(a) 24 : 39 : 14

(b) 14 : 24 : 39

(c) 24 : 36 : 48

(d) 36 : 24 : 48

Answer: (a)

50. The difference between the simple interest and compound interest is Rs. 180. The duration is 3 years and the interest percentage is 10%. What is the principle amount?

(a) Rs. 210.55

(b) Rs. 543.8

(c) Rs. 174.59

(d) Rs. 5806.45

Answer: (d)

51. There is a 50% increase in the sum of money after 5 years at compound interest. 12,000 is the principle amount. What should be the simple interest rate so that the capital is same but at the duration of 4 years?

(a) 25%
(b) 6.25%
(c) 12.50%
(d) 50%

Answer: (c)

52. 'X' walks a 1 km long street in 10 minutes. What is the speed of 'X' in meter per minute?

(a) 100
(b) 10
(c) 1000
(d) 6

Answer: (a)

53. 'X' rides a cycle for 5 minutes and covers 1.5 Kms. After that he walks for 10 more minutes at a speed of 12 Km/h. What is the average speed of B in Km/h?

(a) 8.5
(b) 7
(c) 14
(d) 21

Answer: (c)

54. 'A' is 20% more efficient than 'B'. How l[illegible] will [illegible] take to complete the work If 'B' takes 48 days to complete the work?

(a) 20 days
(b) 40 days
(c) 30 days
(d) 10 days

Answer: (b)

55. 'A', 'B' can do the work in 10 and 20 days respectively. If 'B' is assisted by 'A' in every 2nd day, how many days will they take to complete the work?

(a) 5 days
(b) 10 days
(c) 15 days
(d) 20 days

Answer: (b)

56. A cylinder of 4 cm diameter and 9 cm height is moulded into a sphere. What will be the radius of the sphere?

(a) 9 cm

(b) 6 cm

(c) 3 cm

(d) 12 cm

Answer: (c)

57. A wall 70 cm thick is built with 3 meter height and 10 meter long. How many bricks will be required to build this wall if the length-width-height of the brick is 25 cm-15 cm-10 cm?

(a) 56

(b) 560

(c) 5600

(d) 560000

Answer: (c)

General English

81. The sentence below has been divided into three parts. Select the part of the sentence that has an error. If the sentence has no error, select the option 'No Error'.
However, relative cost/ effectiveness is considered/ the most important criteria.

(a) However, relative cost

(b) effectiveness is considered

(c) the most important criteria.

(d) No Error

Answer: (c)

82. The sentence below has been divided into three parts. Select the part of the sentence that has an error. If the sentence has no error, select the option 'No Error'.
The concrete wall that/ used to divide this city/ has now all but gone.

(a) The concrete wall that

(b) used to divide this city

(c) has now all but gone.

(d) No Error

Answer: (d)

83. Select the word segment that substitutes (replaces) the bracketed word segment correctly and completes the sentence meaningfully. Select the option 'no correction required' if the sentence is correct as given.
He was quoted (saying that, "But at the same time,) neither was he simply a wonder-worker who left people amazed yet bewildered.".

(a) saying, "But at the same time,

(b) saying that, "At the same time,

(c) saying that at the same time,

(d) No correction required

Answer: (a)

84. Select the word segment that substitutes (replaces) the bracketed word segment correctly and completes the sentence meaningfully. Select the option 'no correction required' if the sentence is correct as given.
The English Channel is a body of water (lying between the Great Britain and France).

(a) lying in the middle of the Great Britain and France

(b) running across the Great Britain and France

(c) lying between Great Britain and France

(d) No correction required

Answer: (c)

85. Fill in the blank with the most appropriate choice.
As I was walking down the sidewalk, I noticed the worm would _____ because it was having a hard time moving on the concrete back to the grass.

(a) wiggle

(b) struggle

(c) snuggle

(d) boggle

Answer: (a)

86. Fill in the blank with the most appropriate choice.
If the book's plot is _____, then readers will quickly grow tired of the boring story.

(a) pedestrian

(b) restrain

(c) distrain

(d) constrain

Answer: (a)

87. Some parts of a sentence have been jumbled up, and labelled P, Q, R and S. Select the option that gives the correct sequence in which these parts can be rearranged to form a meaningful and grammatically correct sentence.
She simply continued
P. temper, inflexible in her
Q. to be mild in her
R. judgment, disposed to
S. admonish her husband, and
able to frustrate him by stratagem.

(a) PRSQ

(b) QPRS

(c) PSRQ

(d) RPQS

Answer: (b)

88. Select the word that is SYNONYM (similar in meaning) to the word given below. unadorned

(a) embellished

(b) decorated

(c) austere

(d) pious

Answer: (c)

89. Select the word that is ANTONYM (opposite in meaning) to the word given below. profligate

(a) principled

(b) frugal

(c) careful

(d) gentle

Answer: (b)

90. Four words are given, out of which only one word is spelt correctly. Choose the correctly spelt word.

(a) perfudy

(b) prefudy

(c) perfidy

(d) prefidy

Answer: (c)

91. Four words are given, out of which only one word is spelt correctly. Choose the correctly spelt word.

(a) misenthrope

(b) misantrope

(c) misanthrope

(d) missanthrope

Answer: (c)

92. Select the most appropriate meaning of the given idiom.
Gall and wormwood

(a) Strong feelings of resentment and bitterness

(b) To move beyond something that is bothering you

(c) Natural and simple

(d) Permanently, forever

Answer: (a)

93. Select the most appropriate meaning of the given idiom.
Fabian policy

(a) Policy of speeding up decisions

(b) Divided into two equal parts

(c) Equal opportunity to all

(d) Policy of delaying decisions

Answer: (d)

94. Select the most appropriate 'one word ' for the expressions given below.
Very determined to do something

(a) Tenet
(b) Tenuity
(c) Talisman
(d) Tenacious

Answer: (d)

95. Select the most appropriate 'one word ' for the expressions given below.
Influence of one country or social group over another country or a group of people

(a) Antimony
(b) Hegemony
(c) Acrimony
(d) Palimony

Answer: (b)

96. What caused slow rotating speeds of the Tyrannosaurus Rex?

(a) Large size and long tails
(b) Large size and short tails
(c) Large size
(d) Short tail

Answer: (a)

98. How long does it take for a Tyrannosaurus Rex t urn 45 degrees?

(a) Twentieth of a second
(b) Twenty seconds
(c) Two seconds
(d) Five Seconds

Answer: (c)

100. What afflictions did Triceratops face in relation to the Tyrannosaurus Rex being its predator?

(a) The same lack of mobility, agility and speed.
(b) Predatory skills like that of Tyrannosaurus Rex.
(c) Lower top speed when compared to Tyrannosaurus Rex.
(d) Increased mobility, agility and speed.

Answer: (a)

Discipline1

101. Liquid anaesthetic is poured over a mask with gauze and its vapour is inhaled with air. This is called:

(a) Open system through anaesthetic machines
(b) Open drop method
(c) Closed system through anaesthetic machines
(d) Close drop method

Answer: (b)

102. "The dose needed to produce maximal therapeutic effect cannot be given because of intolerable adverse effects" is known as:

(a) Target level dose
(b) Regulated dose
(c) Intolerance to a dose
(d) Titrated dose

Answer: (d)

103. Which of the following has the broad spectrum antiemetic action effective in PONV (Post operative Nausea and vomitting), radiation sickeness vomiting and liver disease induced vomiting ?

(a) Anticholinergics
(b) Nicotinic acid
(c) Anti-Helicobactor pylori drugs
(d) Neuroleptics

Answer: (d)

104. The drug active against most gram-positive cocci including MRSA, some VRSA and some VRE is:

(a) Quinupristin/Dalfopristin
(b) Spectinomycin
(c) Mupirocin
(d) Fusidic acid

Answer: (a)

105. The best wetting agent for hard contact lenses is:

(a) Polyvinyl alcohols
(b) Sodium chloride
(c) Boric acid
(d) Benzalkonium chloride

Answer: (a)

106. Which is a TRUE statement?

(a) For the intra-muscular injection, the aqueous solutions should be slightly hypotonic to promote rapid absorption.

(b) Eye drops may be hypotonic, because only a small volume is used which is quickly diluted by lachrymal secretion.

(c) For the solutions used for nasal drops, isotonicity is needed.

(d) For the iv injections, hypertonicity is always desirable.

Answer: (c)

107. These ointments are used to relieve itching. Commonly used drugs are benzocaine and coal tar.

(a) Keratolytic ointments

(b) Counter-irritant ointments

(c) Antieczematous ointments

(d) Antipruritic ointments

Answer: (d)

108. Which of the following is TRUE about Hard paraffin ?

(a) It is a purified mixture of semisolid hydrocarbons obtained from petroleum.

(b) It is a purified mixture of solid hydrocarbons obtained from petrolatum.

(c) It consists of a mixture of liquid hydrocarbons, obtained from petroleum by distillation.

(d) It may contain small traces of bleaching agent which are generally left over after bleaching.

Answer: (b)

109. Which of the following is TRUE about Agar ?

(a) It is rarely used as an emulsifying a[illegible] be[illegible]se it produces very coarse and thick emulsion.

(b) Stable emulsion can be prepared with gu[illegible]cacia as emulsifying agent.

(c) It is not a good emulsifying agent, as it forms a very coarse and viscous emulsion.

(d) It is used as an emulsifying agent by preparing 10% mucilage, by dissolving in boiling water and cooled at 20°C

Answer: (c)

110. Incase of Delocalization, one of the following is TRUE about Ethylene:

(a) Although the six annular carbon atoms are bonded to each other via sp2 orbitals, the resultant molecule does not behave as an unsaturated compound.

(b) The six annular carbon atoms are bonded to each other via sp orbitals, the resultant molecule does behave as an unsaturated compound.

(c) The four annular carbon atoms are bonded to each other via sp2 orbitals, the resultant molecule does not behave as an unsaturated compound.

(d) Although the three annular carbon atoms are bonded to each other via sp2 orbitals, the resultant molecule does not behave as saturated compound.

Answer: (a)

111. Yellow phosphorus is soluble in which of the following?

(a) Hydrogen peroxide

(b) Carbon disulfide

(c) Carbon tetrachloride

(d) Carbon sulphate

Answer: (b)

112. Which of the following has been investigated for possible use as anaesthetics, but the sparsity with which this element occurs in nature imposes severe limitations on any conjectured use ?

(a) Rubidium

(b) Cesium

(c) Helium

(d) Xenon

Answer: (d)

113. The characteristic ending "-ol" is for alcohols, phenols, naphthols. Similarly, the ending "-oyl" is for:

(a) Aldehyde

(b) Enzymes

(c) Carbohydrates

(d) Acyl radicals

Answer: (d)

114. Example of Tetrahydro-2H-1,3,2-oxazaphosphr e :

(a) Phenazocine

(b) Physostigmine

(c) Cyclophosphamide

(d) Pramoxine

Answer: (c)

115. The dried seeds of Plantago ovata is largely cultivated in _____.

(a) Sikkim, West Bengal and Odisha

(b) Gujarat, Rajasthan, Punjab and Maharashtra

(c) Maharashtra, Karnataka, Andra Pradesh and Tamil Nadu

(d) Madhya Pradesh, Maharashtra and Goa

Answer: (b)

116. The fully dried ripe fruits of plant Coriandrum sativum Linn. Is substituted by:

(a) Bengal coriander fruits which contain less volatile oil and are ovate in shape

(b) Bombay coriander fruits which contain less volatile oil and are ellipsoidal in shape

(c) Bombay coriander fruits which contain less volatile oil and are elongated in shape

(d) Bengal coriander fruits which contain less volatile oil and are elongated in shape

Answer: (b)

117. Camphor gets readily liquefied if:

(a) triturated with phenol, menthol, thymol, chloral hydrate and resorcinol

(b) triturated with phenol, menthol, chlorobenzene, thymol and resorcinol

(c) kept in sulphuric acid

(d) kept at room temperature with a drop of vanillin

Answer: (a)

118. For isolation of any active constituent from fresh plant material which of the following is CORRECT?

(a) The fresh plant material is homogenized with methanol : water (8 : 1) for 15 minutes and then filtered.

(b) The marc is extracted several times with ethanol, combined and then filtered.

(c) The filtrate is concentrated to 1/8th volume under vacuum, acidified and extracted exhaustively with chloroform.

(d) The aqueous basic layer is evaporated and extracted with ethyl acetate.

Answer: (c)

119. Which of the following is TRUE?

(a) Hydroxyl value is the number of milligrams of potassium sulphate required to neutralise the acetic acid capable of combining by acetylation with 1 g sample of fat or oil.

(b) Unsaponification matter is the matter present in fats and oil, which after saponification and subsequent extraction remains non-volatile on dry[illegible] at 70 °C.

(c) Hydroxyl value is the number of milligrams of [illegible]assium sulphate required to neutralise the acetic acid capable of combining by acetylation [illegible]h 1 mg sample of fat or oil.

(d) Unsaponification matter is the matt[illegible]rese[illegible]n fats and oil, which after saponification and subsequent extraction remains non-volat[illegible]ying at 80 °C

Answer: (d)

120. Mark the CORRECT relationship.

(a) Lipmann - Role of ATP in biological system - 1920

(b) Meselson and Stahl - discovered DNA polymerase - 1958

(c) Kuhne - proposed the term 'Enzyme' - 1877

(d) Neuberg - Chemical pathway for fermentation - 1920

Answer: (c)

Discipline2

121. Which statement is FALSE for eukaryotic cell?

(a) Double membrane bound nucleus containing linear chromosomes.

(b) Complex 8+2 type undulipodium, cytoskeleton, cytosis and mitosis.

(c) Many membrane bound organelles and double membrane-bound endosymbionts.

(d) Cytoplasmic streaming allows rapid transport across the cell.

Answer: (b)

122. Without this, many disease-causing bacteria loose their ability to infect because they are unable to attach to the host tissue.

(a) Plasmids
(b) Nucleoid
(c) Flagella
(d) Pili

Answer: (d)

123. Number of proteins present in a large 50S subunit and 30S subunit of ribosomes of a prokaryotic cell:

(a) 34 proteins and 21 proteins respectively.
(b) 36 proteins and 19 proteins respectively.
(c) 34 proteins and 19 proteins respectively.
(d) 32 proteins and 21 proteins respectively.

Answer: (a)

124. Number of proteins present in a large 60S subunit and 30S subunit of ribosomes of eukaryotic cell:

(a) 49 proteins and 33 proteins respectively.
(b) 33 proteins and 49 proteins respectively.
(c) 40 proteins and 39 proteins respectively.
(d) 29 proteins and 13 proteins respectively.

Answer: (a)

125. Amino acid oxidases, catalase-oxidati degr tion reactions. These are related to:

(a) Mitochondria
(b) Cytoplasm
(c) Peroxisomes
(d) Lysosomes

Answer: (c)

126. Which are mainly concerned with protection of the body against microbes and other damaging substances that enter in the body?

(a) Platelets
(b) Erythrocytes
(c) Thrombocytes
(d) Leukocytes

Answer: (d)

127. Correct statement for Peripheral nervous system is:

(a) Afferent nerve fibres convey nerve impulses carrying 'output' from the brain to effector organs.

(b) Motor nerve fibres convey nerve impulses carrying 'output' from the brain to effector organs.

(c) Motor nerve fibres provide the brain with 'input' from organs and tissues.

(d) Sensory nerve fibres convey nerve impulses carrying 'output' from the brain to effector organs.

Answer: (b)

128. Basement membrane is present in all, EXCEPT:

(a) Stratified epithelia

(b) Ciliated columnar epithelium

(c) Cuboidal epithelium

(d) Columnar epithelium

Answer: (a)

129. All of the below are the sub-areas of Family Health Services, EXCEPT:

(a) Health education

(b) Education through media

(c) Maternal child health services

(d) Nutrition

Answer: (b)

130. Which group of amino acid is CORRECT in rela to essential amino acids?

(a) alanine - arginine - leucine - glutam

(b) isoleucine - methionine - valine - lysine

(c) phenylalanine - alanine - valine - lysine

(d) isoleucine - arginine - valine - phenylalanine -lysine

Answer: (b)

131. The preventive measures of infections are given below, except one. Mark the incorrect one.

(a) Early diagnosis and treatment until cure.

(b) Proper health education regarding hygiene.

(c) Preventing personal hygiene.

(d) Avoiding irritational products.

Answer: (c)

132. To avoid eye strain, which statement should be avoided?

(a) Give direct exposure of eyes to direct sunlight and extreme brightness for nutritional gain.

(b) Hold the book at 45-75 degrees horizontally.

(c) Reading must be done under sufficient light.

(d) Avoid reading in moving vehicle or in a lying position.

Answer: (a)

133. The Patent office has branch offices with territorial jurisdiction on a zonal basis in INDIA as:

(a) Mumbai branch office with the jurisdiction on the states of Maharashtra, Gujarat, Madhya Pradesh, Goa, Diu and Dadra & Nagar Haveli and Chhattisgarh

(b) New Delhi branch office with the jurisdiction on the states of Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab and Goa

(c) Mumbai branch office with the jurisdiction on the states of Maharashtra, Gujarat, Madhya Pradesh, Goa, Diu and Dadra & Nagar Haveli, Karnataka

(d) New Delhi branch office with the jurisdiction on the states of Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Goa and Chandigarh

Answer: (a)

134. According o the Shop and Establishment Act and the Factories Act, 1948 one of the following is TRUE

(a) No young person or women are allowed to work before 6 a.m. and after 9 p.m. in any establishment and also to perform such work as my be declared by the State Government.

(b) No employee is allowed to work for more than 12 hours in any day and for 72 hours in a week.

(c) No young person or women are allowed to work before 6 a.m. and after 7 p.m. in any establishment and also to perform such work as my be declared by the State Government.

(d) No employee is allowed to work for more than 12 hours in any day and for 48 hours in a week.

Answer: (c)

135. Which one of the following sentences is CORREC about the AICTE council members?

(a) The Chairman is appointed by the State Gove nent

(b) One member to represent the Ministry of Fi ce to be appointed by the Central Government.

(c) One member of Parliament who shall be elected by the House of People and one of the Council of States.

(d) Seven other members to be appointed by the State Government.

Answer: (b)

136. What is Clandestine arrangement?

(a) No pharmacist should enter into any secret arrangements or contract with a physician, to offer him any commission or any advantage by recommending his dispensary or drug store.

(b) Pharmacist should enter into any secret arrangements or contract with a physician, to offer him any commission or any advantage by recommending his dispensary or drug store.

(c) No medical representative should enter into any secret arrangements or contract with a physician, to offer him any commission or any advantage by recommending his dispensary or brands.

(d) A medical representative should enter into any secret arrangements or contract with a physician, to offer him any commission or any advantage by recommending his dispensary or brands.

Answer: (a)

137. Opium was brought under legislative control in the year:

(a) 1859
(b) 1957
(c) 1851
(d) 1857

Answer: (d)

138. The import of foreign goods of one country to export it to other counties is called:

(a) Import trade
(b) Export trade
(c) Entrepot trade
(d) Extrapot trade

Answer: (c)

139. What is that partner called as who has neither contributed any capital to the firm nor takes part in the management of the firm but talks to the outsiders to create an pression that he is a partner of the firm ?

(a) Secret Partner
(b) Partner by estoppel
(c) Sleeping or Inactive partner
(d) Partner in profits only

Answer: (b)

140. One of the following is NOT a fixed shop large le retailer:

(a) Mail order business
(b) Hire-purchase shops
(c) Co-operative stores
(d) Speciality shops

Answer: (d)

Discipline3

141. Select the CORRECT statement for getting the licence for sale of drug.

(a) An affidavit of non-conviction under Drugs and Cosmetics Act on Rs. 3/- non-judicial stamp paper, duly attested by a first class magistrate is to be attached with the application form no. 19.
(b) Application form no. 20 duly completed in duplicate of Drugs and Cosmetics Rules, 1945.
(c) Application form no. 21 duly completed in duplicate of Drugs and Cosmetics Rules, 1945.
(d) Application form no. 21A duly completed in duplicate of Drugs and Cosmetics Rules, 1945.

Answer: (a)

142. According to VED analysis for Inventory control, which suits the best?

(a) Generally classified into three categories, i.e., V stands for Vital; E stands for Evaluation; D stands for Desirable.

(b) Generally classified into three categories, i.e., V stands for Vigorous; E stands for Evaluation; D stands for Data.

(c) Generally classified into three categories, i.e., V stands for Vital; E stands for Essential; D stands for desirable.

(d) Generally classified into three categories, i.e., V stands for Various; E stands for Essential; D stands for Data.

Answer: (c)

143. Select the CORRECT option for the organization of health delivery system in descending order.

(a) Union Ministry of Health and Family Welfare, Regional directors, Deputy secretary, Public health.

(b) Ministry of Health and family welfare, Secretary, Commissioner, Joint Secretary.

(c) Minister of State for Health, Secretary, Regional directors, commissioner.

(d) DHS Public Health, DGHS, Joint Secretary, Minister of State for Health.

Answer: (b)

144. There are various factors affecting the economy of a hospital. One of the factors is manufacturing capacity. Manufacturing capacity depends on:

(a) number of technically incompetent and partially qualified pharmacists

(b) direct cost and indirect cost of the hospital

(c) calculation of consumption rate and the size equipment

(d) availability of equipment and econo of a spital to fulfil the requirement

Answer: (d)

145. Bead sealing method is:

(a) Tip of ampoule neck is heated to form a bead which closes the opening.

(b) Tip is grasped firmly and pulled quickly with continuous rotation of ampoule over flame.

(c) The method gives rise to a capillary tube, formed twisted and closed.

(d) It is slower but more sure than tip sealing.

Answer: (a)

146. The drugs for hospital use may be purchased as follows, EXCEPT:

(a) Directly from manufacturer

(b) From wholesaler or manufacturer by bid

(c) From local retail pharmacy

(d) By purchasing the left over from smaller clinics.

Answer: (d)

147. The Pharmacy and Therapeutic Committee is composed of:

(a) At least three physicians, a pharmacist and a nurse representative.

(b) At least three pharmacists, two physicians and a nurse representative.

(c) At least three physicians, two nurses and a pharmacist.

(d) At list three physicians, three pharmacists and two nurse representatives.

Answer: (a)

148. Select the proper matching for DOSY:

(a) An X-detected experiment for e.g. 1 H–13C 1-bond correlation, which suffered from lack of sensitivity (in the case of 13C).

(b) The transfer of polarisation from, for example, proton to carbon. This is used in 13C solid state NMR to enhance the magnetisation of the 13C

(c) Pulsed field gradients are used to map the physical location of molecules and molecular diffusion is characterised along the direction of the applied field gradient (usually the z-axis).

(d) Homonuclear experiment to detect coupling. Used mostly for 1 H but for example can be used for 19F too.

Answer: (c)

149. Pirkle type interaction is:

(a) Straight-phase solvents are used, typically propane-2-ol-hexane.

(b) High enantioselectivity for α-amino acids and α-hydroxy amino acids.

(c) Cheap, readily available pure, natural amino ac chiral selector.

(d) Low or medium molecular weight chiral selec

Answer: (a)

150. There are some acronyms and their expa . Identify the WRONG one.

(a) HETCOR stands for Heteronuclear Corelation

(b) DOSY stands for Diffusion-Ordered Spectroscopy

(c) NOESY stands for Nuclear Overhauser Effect Spectroscopy.

(d) ROESY stands for Rotational Overhauser Effect Spectroscopy.

Answer: (d)

151. Which statement describes the solid state NMR best?

(a) The orientation of molecules with respect to each other and the static magnetic field is effectively random.

(b) Molecules are generally free to undergo translational and rotational movement.

(c) The spins of NMR active nuclei in solids are held in distinct environments and can interact with each other in a way that is not motionally averaged.

(d) Averaging of any interaction is independent on the orientation of the magnetic field.

Answer: (c)

152. Which ionization technique can also be used with very low flow separation systems such as capillary electrophoresis, capillary HPLC and chip style separators?

(a) Electrospray

(b) Nanospray

(c) Atmospheric pressure chemical ionization

(d) Chemical ionisation

Answer: (b)

153. There are three types of area networks. Select the CORRECT match.

(a) LANs are used to connect networking devices that are in a very close geographic area, such as a floor of a building, a building itself, or a campus environment.

(b) WAN is a hybrid between a LAN and a MAN.

(c) MANs are used to connect LANs together. Typically, MANs are used when the LANs that must be connected are separated by a large distance.

(d) WANs are used to connect networking devices that are in a very close geographic area, such as a floor of a building, a building itself, or a campus environment.

Answer: (a)

154. Static routing:

(a) The process involves use of peculiar routing protocols to hold communication with minimum of four routers.

(b) The manual updating is also required in case of automatically configured routers when change in the topology of the network or in the layout takes place.

(c) For larger environment dynamic routing proves to be the practical solution.

(d) The purpose is to enable the other routers to transfer information about to other routers, so that the other routers can build their own routing tables.

Answer: (b)

155. There are two types of Visual Display Unit. Which statement describes about it in a TRUE sense?

(a) Cathode-Ray Tube Monitor takes only one illuminated pixel to form whole character, such as the letter 'e' in the word help.

(b) The bigger the pixels of Cathode-Ray Tube Monitor, the better the image clarity or resolution.

(c) The screen of Cathode-Ray Tube Monitor can be divided into a series of character boxes- fixed location on the screen where a standadard character can be placed.

(d) Flat- Panel Display Monitor can be divided into a series of character boxes- fixed location on the screen where a standadard character can be placed.

Answer: (c)

156. Microsoft office powerpoint is everything, EXCEPT one of the following:

(a) enables anyone to produce, with a little practice, beautifully laid out presentations, either as on-screen shows, or as OHP slides.

(b) Files produced in PowerPoint 2007 have the file extension ".pptx"

(c) If you wish to use an old PowerPoint presentation in PowerPoint 2007, PowerPoint will switch to compatibility mode, to let you work on the old file with no problems.

(d) type of computer program that is used to create a variety of documents, from simple letters to fully illustrated newsletters and fliers.

Answer: (d)

157. Navigation pane:

(a) Use it to access libraries, folders, saved searches and even entire hard disks.

(b) Appears only when you are in library such as the document library.

(c) Used to perform normal tasks, such as changing the appearance of files, burning files to a CD or starting a digital picture slide show.

(d) Works together with the address bar.

Answer: (a)

158. Transmission of pain stimuli; increased vascular permeability; and mast cell degranulation, these are some of the main proinflammatory actions seen with somatostatin. This can be related to:

(a) Serotonin

(b) Histamine

(c) Eicosanoids

(d) Neuropeptides

Answer: (d)

159. Select the CORRECT match for tissue machrophages.

(a) Epithelioid cells are modified macrophages seen in granulomatous inflammation.

(b) Histiocytes are macrohages which are absent in connective tissues.

(c) Kupffer cells are the macrophages of the kidney.

(d) Reticulum cells are the macrophages of connective tissues.

Answer: (a)

160. Primary complex in lungs consist of three components. Identify the INCORRECT option.

(a) Lesion in the lung is the primary focus or Ghon's focus.

(b) The lymphatics draining the lung lesion contain phagocytes.

(c) The affected lymph nodes are matted and show caseation necrosis.

(d) The infection of an individual who has been always infected from childhood is called Ghon's complex.

Answer: (d)

Discipline4

161. Depending upon the capacity to divide, the cells of the body can be divided into 3 groups. Identify the CORRECT description.

(a) Stable cells decrease or lose their ability to proliferate after adolescence but retain capacity to multiply throughout adult life.

(b) Permanent cells lose their ability to proliferate but keeps on multiplying thoughout the lifespan.

(c) Labile cells decrease or lose their ability to proliferate after adolescence but retain capacity to multiply throughout adult life.

(d) Stable cells continue to multiply throughout life under normal physiologic conditions.

Answer: (a)

162. The rise in the tube continue until the upward movement is just balanced by the downward force of gravity due to the weight of the liquid. This happens in :

(a) Tensiometer

(b) Bubble pressure

(c) Capillary rise

(d) Drop weight

Answer: (c)

163. Select the CORRECT option regarding host in inclusion complexes.

(a) Paraffins, Ethyl alcohol, Amylose

(b) Urea, Thiourea, Amylose.

(c) Esters, Urea, Thiourea

(d) Ethyl, alcohol, Dioxane

Answer: (b)

164. Quinhydrone complexes are formed by:

(a) Overlapping of the pi framework of molecules.

(b) Overlapping of the sigma framework of molecules.

(c) Carbon bonding which stabilizes the association.

(d) Hydroxide bonding which unstabilizes the association.

Answer: (a)

165. Which of the following is CORRECT in relationship shown as Enzyme : Substrate : Inhibitor ?

(a) Monoamine oxidase: Catecholamines: Ephedrine

(b) Acetylcholine esterase: Catecholamines: Ephedrine

(c) HMG CoA reductase: Vitamin K: Lovastatin

(d) Xanthine oxidase: Hypoxanthine: Dicumarol

Answer: (a)

166. Allopurinol gets converted to alloxanthine. Which inhibition does it refer to?

(a) Allosteric inhibition

(b) Suicide inhibition

(c) Irreversible inhibition

(d) Reversible inhibition

Answer: (b)

167. Choose the CORRECT option for coenzyme and its function.

(a) UDP - donates phosphate, adenosine and AMP moieties.

(b) CDP - donates methyl group in biosynthetic reactions.

(c) ATP- required in phospholipid synthesis as carrier of choline.

(d) UDP- carrier of monosaccharides, required for glycogen synthesis.

Answer: (d)

168. The most frequently found amino acid at the active site is:

(a) isoleucine

(b) valine

(c) leucine

(d) serine

Answer: (d)

169. Mark the CORRECT option for Lowenstein- Jens[illegible]nd Loeffler's serum.

(a) It is rendered sterile by heating at 80-85°C fo[illegible]alf an hour on three successive days.

(b) It is rendered sterile by heating at 60-75°C f[illegible]alf an hour on five successive days.

(c) It is rendered sterile by heating at 8[illegible] half an hour for 1 day.

(d) It is rendered sterile by heating at 45°C for half an hour on four successive days.

Answer: (a)

170. Candle filters are:

(a) having high absorbing capacity and tend to alkalinise filtered liquids.

(b) made of cellulose esters or other polymers.

(c) prepared by heat-fusing finely powdered glass particles of graded sizes.

(d) manufactured in different grades of porosity and have been used for purification of water for drinking purpose.

Answer: (d)

171. Egg yolk reaction is related to:

(a) Christensen's urease medium

(b) Organism producing lecithinase

(c) Nessler's reagent

(d) Kovac's method

Answer: (b)

172. It is made in tubes containing agar slope and is employed for providing a pure growth of bacterium for slide agglutination.

(a) Stroke culture

(b) Streak culture

(c) Stab culture

(d) Carpet culture

Answer: (a)

173. Which statement is TRUE?

(a) Basal media contains indicator which changes colour when bacterium grows in them.

(b) In differential media, substances like blood, serum or egg are added to the basal media.

(c) Complex media has added ingredients for special purposes or to bring out a particular characteristic required for growth of a particular bacterium under study.

(d) Synthetic media consists of peptone, sodium chloride and meat extract.

Answer: (c)

174. It consists of a vertical, tapered and transparent tube in which a plummet is placed. During the fluid flow through the tube, the plummet rises and falls because of variation in flow.

(a) Pitot tube

(b) Rotameter

(c) Direct Displacement Meter

(d) Venturi Meter

Answer: (b)

175. Which rubber is resistant to oil and so[illegible]ts?

(a) Butyl rubber

(b) Silicon rubber

(c) Polyisoprene

(d) Nitrile rubber

Answer: (d)

176. Which can be formed under heat and pressure. But cannot be softened or remoulded, once hardened?

(a) Thermoplastic plastics

(b) Thermosetting plastics

(c) Plastic cements

(d) Flexible materials

Answer: (b)

177. Which of the following produces intense shearing force and turbulence by the use of high-speed rotors and the circulation of the material ensures rapid breakdown of the dispersed liquid into smaller globules?

(a) Silverson Mixer- Emulsifier

(b) Colloid mill

(c) Ultrasonic Emulsifier- Rapisonic Homogenizer

(d) Hand homogenizer

Answer: (a)

178. Acharya P.C. Ray in 1901 established the _____.

(a) Bengal Chemical and Pharmaceuticals at Calcutta

(b) Alembic Chemical Works at Baroda

(c) Bengal Chemical and Pharmaceutical Works at Calcutta

(d) A small factory at Parel (Bombay)

Answer: (c)

179. Which of the following is a Schedule G drug?

(a) Hydantoin, its salts; its derivatives and their salts.

(b) Barbituric acid, its salts and derivatives

(c) Labetalol HCl

(d) Heparin

Answer: (a)

180. Loan licenses are issued for the manufacture f ale or distribution of drugs other than those specified in:

(a) Schedule C, G & H

(b) Schedule G & H

(c) Schedule K, W & X

(d) Schedule C, C1 & X

Answer: (d)

Discipline5

181. The Poison Act extends to whole of India but is NOT applicable to the:

(a) State of Goa

(b) State of Jammu & Kashmir

(c) Union Territories

(d) States of Maharashtra and Punjab

Answer: (b)

182. Provisions applicable to homeopathic medicines state that:

(a) A license is necessary for the import of a new homeopathic medicine which is not specified in the Homeopathic Pharmacopoeia of India, USA, UK or Japan or not recognised as efficacious.

(b) A license is necessary for the import of a new homeopathic medicine which is not specified in the Homeopathic Pharmacopoeia of India or not recognised as efficacious.

(c) A license is necessary for the import of a new homeopathic medicine which is not specified in the Homeopathic Pharmacopoeia of India, USA, UK or Germany or not recognised as efficacious.

(d) A license is necessary for the import of a new homeopathic medicine which is not specified in the Homeopathic Pharmacopoeia Britain or not recognised as efficacious.

Answer: (c)

183. Which of the following is NOT a QSAR Method?

(a) Free energy Models

(b) Shake-flask Method

(c) Topological Methods

(d) Molecular modelling

Answer: (b)

184. In case of iron poisoning:

(a) Vitamin can effectively treat systemic iron toxicity.

(b) Edetate calcium disodium can effectively treat [illegible]temic iron toxicity.

(c) Sodium thiosulphate can effectively treat the [illegible]temic iron toxicity.

(d) Deferoxamine can effectively treat systemic [illegible] toxicity.

Answer: (d)

185. Yellow pigmentation of the skin and yellow colour of urine appears during the treatment with:

(a) Sulphonamide

(b) Pamaquine

(c) Quinacrine

(d) Pyrimethamine

Answer: (c)

186. In case of lead toxicity which one is NOT recommended?

(a) Deferoxamine

(b) Edetate calcium disodium

(c) Dimercaprol

(d) D-penicillialmine

Answer: (a)

187. Which is NOT the aspect to be considered while stability testing?

(a) Justification of package type chosen

(b) Product-container compatibility studies

(c) Bio-compatibility

(d) Drug-Drug interaction

Answer: (d)

188. The whole world is divided into four climatic zones in order to harmonize and simplify stability testing. Korea and Nepal comes under which climatic zone?

(a) Climatic Zone I

(b) Climatic Zone II

(c) Climatic Zone III

(d) Climatic Zone IV

Answer: (b)

189. Establishment of documented evidence during implementation of the system deals with:

(a) Concurrent Validation

(b) Prospective Validation

(c) Revalidation

(d) Retrospective Validation

Answer: (a)

190. There are mainly three parts of Bioavailability st / submission (i.e., protocol, data and results). Which element is NOT the part of Protocol'

(a) Case reports

(b) Study objectives

(c) Ethical consideration

(d) Study design

Answer: (a)

191. What is unable to degrade starch and dextrine, since it does NOT produce starch-decomposing enzymes?

(a) Actinoplanes spec.

(b) Streptomyces spec.

(c) Saccharomyces spinosa

(d) Saccharomyces cerevisiae

Answer: (d)

192. Correct pair in terms of similar application is:

(a) S. lavendulae; S. tendae

(b) S. noursei; S. natalensis

(c) S. hygroscopicus; S lincolnensis

(d) S. lincolnensis; S. natalensis

Answer: (b)

193. Which order of the soil bacteria are the most important producers of bioactive metabolites like antibiotic, antitumor agents, immunosuppressants, antiparasitic agents, herbicides and enzyme-inhibiting agents ?

(a) Agrobacterium
(b) Actinomycetes
(c) Acetobacter
(d) Azotobacter

Answer: (b)

194. Select the INCORRECT group based on chemical classification.

(a) Peppermint, Clove, Eucalyptus, Garlic
(b) Digitalis, Senna, Cascara, Liquorice
(c) Digitalis, Ergot, Clove, Cascara
(d) Nux vomica, Ergot, Cinchona, Datura

Answer: (c)

195. What is the actual range of vein-islet number for Datura stramonium?

(a) 20 to 28
(b) 12 to 16
(c) 16 to 24
(d) 6 to 8

Answer: (b)

196. For G. glabra, which falls under CORRECT vari[illegible]escription?

(a) G. glabra var. typica, called persian [illegible]as bright root stock.
(b) G. glabra var. violacea, called spanish li[illegible]e has violet flowers.
(c) G. glabra var. glandulifera, called Russian liquorice has purplish flower.
(d) G. glabra var. typica, called Spanish liquorice has purplish blue coloured flowers.

Answer: (d)

197. _____ process involves grinding of drugs in a ball mill for time long enough to affect spontaneous accumulation.

(a) Agglomerative phase of Comminution
(b) Agglomerating phase of Comminution
(c) Agglomerating phase of Comminuting
(d) Agglomeration phase of Comminution

Answer: (a)

198. The drug with greater affinity for AAG than for HAS is:

(a) Digoxine
(b) Iophenoxic acid
(c) Metformine
(d) Lidocaine

Answer: (d)

199. The two rate determining steps in the absorption of drugs from orally administered formulations are:

(a) disintegration and permeation across the biomembrane

(b) dissolution and permeation across the biomembrane

(c) dissolution and disintegration

(d) disintegration and disaggregation

Answer: (b)

200. Vesicular transport is the other name for:

(a) endocytosis

(b) exocytosis

(c) ion-pair transport

(d) pore transport

Answer: (a)

Answer key

Answer key from the Delhi Subordinate Services Selection Board's official answer key for this sitting. "—" means the key gave none.

General Awareness

1	**(d)**	2	**(a)**	3	**(b)**	4	**(a)**	5	**(d)**	6	**(a)**	7	**(d)**	8	**(b)**
9	**(c)**	10	**(b)**	11	**(d)**	12	**(a)**	13	**(c)**	14	**(c)**	15	**(d)**	16	**(a)**
17	**(d)**	18	**(a)**	19	**(d)**	20	**(a)**								

General Ability

22	**(a)**	23	**(d)**	24	**(b)**	25	**(b)**	26	**(d)**	27	**(a)**	28	**(b)**	29	**(a)**
30	**(a)**	31	**(d)**	32	**(c)**	33	**(c)**								

Arithmetic Ability

41	**(c)**	42	**(a)**	43	**(b)**	44	**(b)**	45	**(b)**	46	**(c)**	47	**(d)**	48	**(d)**
49	**(a)**	50	**(d)**	51	**(c)**	52	**(a)**	53	**(c)**	54	**(b)**	55	**(b)**	56	**(c)**
57	**(c)**														

General English

81	**(c)**	82	**(d)**	83	**(a)**	84	**(c)**	85	**(a)**	86	**(a)**	87	**(b)**	88	**(c)**
89	**(b)**	90	**(c)**	91	**(c)**	92	**(a)**	93	**(d)**	94	**(d)**	95	**(b)**	96	**(a)**
98	**(c)**	100	**(a)**												

Discipline1

101	**(b)**	102	**(d)**	103	**(d)**	104	**(a)**	105	**(a)**	106	**(c)**	107	**(d)**	108	**(b)**
109	**(c)**	110	**(a)**	111	**(b)**	112	**(d)**	113	**(d)**	114	**(c)**	115	**(b)**	116	**(b)**
117	**(a)**	118	**(c)**	119	**(d)**	120	**(c)**								

Discipline2

121	**(b)**	122	**(d)**	123	**(a)**	124	**(a)**	125	**(c)**	126	**(d)**	127	**(b)**	128	**(a)**
129	**(b)**	130	**(b)**	131	**(c)**	132	**(a)**	133	**(a)**	134	**(c)**	135	**(b)**	136	**(a)**
137	**(d)**	138	**(c)**	139	**(b)**	140	**(d)**								

Discipline3

141	**(a)**	142	**(c)**	143	**(b)**	144	**(d)**	145	**(a)**	146	**(d)**	147	**(a)**	148	**(c)**
149	**(a)**	150	**(d)**	151	**(c)**	152	**(b)**	153	**(a)**	154	**(b)**	155	**(c)**	156	**(d)**
157	**(a)**	158	**(d)**	159	**(a)**	160	**(d)**								

Discipline4

161	**(a)**	162	**(c)**	163	**(b)**	164	**(a)**	165	**(a)**	166	**(b)**	167	**(d)**	168	**(d)**
169	**(a)**	170	**(d)**	171	**(b)**	172	**(a)**	173	**(c)**	174	**(b)**	175	**(d)**	176	**(b)**
177	**(a)**	178	**(c)**	179	**(a)**	180	**(d)**								

Discipline5

181	**(b)**	182	**(c)**	183	**(b)**	184	**(d)**	185	**(c)**	186	**(a)**	187	**(d)**	188	**(b)**
189	**(a)**	190	**(a)**	191	**(d)**	192	**(b)**	193	**(b)**	194	**(c)**	195	**(b)**	196	**(d)**
197	**(a)**	198	**(d)**	199	**(b)**	200	**(a)**								