Sample Paper
NAT IIB
VERBAL

Complete the sentences by choosing the most appropriate word, from the given lettered choices (A to D) below each.

1. A range manager helps ranchers improve and increase livestock production _____ of animals to raise.
   A. determined the kind
   B. for determine the kind
   C. when is the kind determined
   D. by determining the kind

2. The Harvest Moon, the full moon nearest the autumnal equinox, ______ a period of several days when the moon rises soon after sunset.
   A. it brings
   B. bringing
   C. for bringing
   D. brings

Each question below consists of a related pair of words, followed by five lettered pairs of words. Select the lettered pair that best expresses a relationship similar to that expressed in the original pair.

3. NEURITIS: NERVES::
   A. dermatitis: tendons
   B. bronchitis: heart
   C. nephritis: kidneys
   D. disease: cause

4. DROWSE : SLEEP ::
   A. order : countermand
   B. look : peruse
   C. obstruct : proceed
   D. attenuate : extend
   E. practice : improve

Choose the lettered word or phrase that is most nearly opposite in meaning to the word in capital letters.

5. MERCURIAL
   A. steady
   B. reliable
   C. constant
   D. regular

Sample Paper NAT IIB
6. CONSOLIDATE
   A. disintegrate
   B. weaken
   C. disorganize
   D. erode

Choose the word most similar in meaning to the capitalized ones.

7. SOPORIFIC:
   A. memorial
   B. sleep producer
   C. awakening
   D. perspire

8. CHIMERICAL:
   A. realistic
   B. economical
   C. fantastic
   D. wonderful

Read the passage to answer question 9-10

About 300 genera and 3,000 species of the Apiaceae family exist in the Northern Hemisphere. Nearly a quarter of these genera are native to the United States, with several large genera in the West. Members of this family are usually aromatic herbs with hollow stems, fern-like leaves, and small flowers in umbels that are further grouped into a compound cluster. The family is important for such foods as carrots, parsnips, and celery and such spices and seasonings as coriander, caraway, anise, parsley, and dill. However, some species are very poisonous.

9. Approximately how many genera of the Apiaceae family are native to the United States?
   A. 25
   B. 75
   C. 300
   D. 3,000

10. Which of the following is NOT mentioned as a member of the Apiaceae family?
    A. Parsnips
    B. Potatoes
    C. Carrots
    D. Parsley
ANALYTICAL REASONING

Although there are no physical differences between the visual organs of the two groups, the inhabitants of the Bilge Islands, when shown a card displaying a spectrum of colors, perceive fewer colors than do most persons in the United States.

11. Which of the following conclusions can most reliably be drawn from the information above?

A. Human color perception is at least partly determined by factors other than the physical structure of the visual organs
B. The Bilge Islanders are probably taught in childhood to recognize fewer colors than are persons in the United States
C. Differences in social structure probably affect color perception
D. Color perception in humans is influenced by differences in physical environment
E. Bilge Islanders may have fewer terms denoting colors in their language than do English-speaking persons

By spraying with pesticides like malathion, we can eradicate dangerous pests like the fruit-fly. But malathion spraying also destroys the ladybug, the best natural predator of aphids. Areas that have been sprayed with malathion are now free of the fruit-fly, but infested with aphids. This is the price we must pay to protect our citrus crop.

12. The argument above assumes all of the following EXCEPT:

A. pesticide spraying is the only way to eradicate the fruit-fly
B. the aphid infestation is caused by the lack of ladybugs
C. a pesticide that would kill fruit-flies and spare ladybugs cannot be made
D. the use of pesticides has disadvantages
E. the aphid infestation could be prevented by introducing a natural predator other than the ladybug

Questions 13-16

Every night at Millano's, the owner, Chunzeb, chooses five dinner specials, each one from a different one of the seven categories: beef, chicken, duck, fish, pasta, seafood, and mutton. In making his decision each night, Chunzeb always adheres to the following conditions:

He chooses exactly one poultry dish: chicken or duck. Whenever there is a fish special, there is also pasta special. Duck is never offered on a night when there is a beef special.

13. On a night when Chunzeb offers a beef special, which of the following must also be offered?

A. chicken
B. duck
C. fish
D. pasta
E. mutton
14. Which of the following could be a list of the five specials for one night?

A. beef, chicken, duck, pasta, fish  
B. beef, fish, pasta, seafood, mutton  
C. beef, chicken, fish, seafood, mutton  
D. beef, duck, fish, pasta, mutton  
E. beef, chicken, fish, pasta, seafood

15. If there is no chicken special one night, which is the other dish that is not on special?

A. beef  
B. duck  
C. pasta  
D. seafood  
E. mutton

16. One night, Chunzeb decides to offer only four specials, one of which is beef. In how many ways can he make up the list of specials?

A. 2  
B. 3  
C. 4  
D. 5  
E. 6

A recent study of cigarette smokers has shown that, of cancer patients who are heavy smokers of unfiltered cigarettes, 40 percent will die of the disease. For cancer patients who are light smokers of filter cigarettes, the percentage is 25 percent.

17. Which one of the following conclusions can be drawn from the information above?

A. There are more heavy smokers of unfiltered cigarettes than light smokers of filter cigarettes.  
B. More heavy smokers of unfiltered cigarettes die of cancer than light smokers of filter cigarettes.  
C. A heavy smoker of unfiltered cigarettes who has cancer is more likely to die than a light smoker of unfiltered cigarettes.  
D. A heavy smoker of unfiltered cigarettes who has cancer may be more likely to die than a light smoker of unfiltered cigarettes.  
E. A heavy smoker of unfiltered cigarettes who has cancer is more likely to die than a light smoker of filtered cigarettes who has cancer.

Questions 18-19

All good athletes want to win, and all athletes who want to win eat a well-balanced diet; therefore, all athletes who do not eat a well-balanced diet are bad athletes.

Sample Paper NAT IIB
18. Which of the following, if true, would refute the assumptions of the argument above?

A. Asma wants to win, but she is not a good athlete
B. Bashir, the accountant, eats a well-balanced diet, but he is not a good athlete
C. All the players on the Burhan baseball team eat a well-balanced diet
D. No athlete who does not eat a well-balanced diet wants to win
E. Chanda, the basketball star, does not eat a well-balanced diet, but she is a good athlete

19. If the assumptions of the preceding argument are true, then which of the following statements must be true?

A. No bad athlete wants to win
B. No athlete who does not eat a well-balanced diet is a good athlete
C. Every athlete who eats a well-balanced diet is a good athlete
D. All athletes who want to win are good athletes
E. Some good athletes do not eat a well-balanced diet

A new law will require labels giving consumers more nutritional information on all prepackaged foods manufactured in Pakistan. Food sold by restaurants or grocers with annual sales of less than RS. 500,000 will be exempt. The required labels will reveal the number of servings, the serving size, the number of calories per serving, and the amount of fat, cholesterol, sodium, and dietary fiber.

The effectiveness of the new labels in improving overall Pakistan nutrition could be seriously questioned if

20. Which one of the following was shown to be true?

A. More than 80 percent of the food sold in this country is not prepackaged
B. More than 80 percent of the prepackaged food sold in this country is marketed by the eight major food corporations
C. The amount of money people in Pakistan spend on prepackaged foods for microwaving has more than tripled every year for the last five years, and the trend is expected to continue
D. An increasingly large number of consumers now read the nutritional information on food packages
E. Small retailers who manufacture packaged foods sell to only a tiny percentage of Pakistani food buyers
21. The leaves of a plant living in arid conditions are needle-like in order to reduce water loss. Which of the following organs of such plant perform photosynthesis instead of leaves?

A. Roots  
B. Stem  
C. Leaf hair  
D. Flowers

22. Which of the following molecules is/are involved in oxidation-reduction reactions of photosynthesis?

I. NAD  
II. NADH  
III. Plastoquinane  

A. Only I  
B. Only II  
C. Both I & II  
D. Both II & III

23. Which of the following has a pair of Alleles on its chromosomes?

A. Pollen grain  
B. Embryonic sac  
C. Human gamete  
D. Bryophyte space

24. In the temperature ecosystem, the growth of plants and trees fall during:

A. Summer  
B. Winter  
C. Spring  
D. Autumn

25. Of the following types of Ecosystem, which one would be biologically the most productive:

A. Ordinary agriculture lands  
B. Shallow lakes  
C. Coastal seas  
D. Alluvial plains

26. Sugarcane (Saccharum officinarum) belongs to:

A. Gramineae  
B. Leguminasea  
C. Compositeae  
D. Solanaceae

Sample Paper NAT IIB
27. The botanical name of Kachnar is:

A. Saraca indica
B. Parkinsonia aculeate
C. Bauhinia variegata
D. None of the above
ZOOGOLOGY

28. Most Arthropods have powerful compound eyes, which are composed of many tightly arrayed units known as:
   A. Chelicerae
   B. Ommatidia
   C. Arachnidia
   D. Chilopodia

29. The body segments present behind the head of Cestoda (Tapeworm) are called:
   A. Proglottids
   B. Proboscis
   C. Scolex
   D. None of the above

30. In sponges, water is sucked in through the inhalant pores, moves through the interior cavity with in the body and exists through the excurrent vent called:
   A. Ostium
   B. Choanocytes
   C. Osculum
   D. Spongocoel

31. Swim bladders or Air bladders, which helps fishes in coming up and going down in water is absent in:
   A. Bony fishes
   B. Cartilaginous fishes
   C. Both groups
   D. None of the above

32. In Chordates, a flexible but sturdy rod of fibrous tissue just ventral to the neural tube is:
   A. Nerve cord
   B. Radial canal
   C. Notochord
   D. Gill slit

33. Most of amphibians respire through:
   A. Lungs
   B. Moist surface
   C. Gill slits
   D. Trachea

34. A scaly skin is the characteristics of:
   A. Birds
   B. Reptiles
   C. Amphibians
   D. Birds and Reptiles
35. The Eutheria are:
   A. Pouched mammals
   B. Egg laying mammals
   C. Placental mammals
   D. Aquatic mammals

36. Spider is the example of:
   A. Crustacea
   B. Arachnida
   C. Diplopoda
   D. Gastropoda

37. Humans have several distinctive features like large, highly developed brains, forwarded eyes giving stereoscopic vision, well developed hands and feet, with opposable thumb to grab things easily, thus are included in:
   A. Marsupials
   B. Primates
   C. Rodents
   D. Amphibians

38. Vertebrates are usually larger than invertebrates, need more space and are more advanced than invertebrates, thus it is believed that vertebrates have _____ species than invertebrates.
   A. Less
   B. More
   C. None of the above
   D. Both

39. The Vertebrata, or vertebrates, is a very diverse group, ranging from ______ to Man.
   A. Frog
   B. Lampreys
   C. Rat
   D. Fish

40. Other name of jawless vertebrates is:
   A. Agnatha
   B. Gnathostomata
   C. Cephalochordata
   D. Tunicata
## Answer Keys

<table>
<thead>
<tr>
<th>Q #.</th>
<th>Right Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>D</td>
</tr>
<tr>
<td>2</td>
<td>D</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
</tr>
<tr>
<td>6</td>
<td>B</td>
</tr>
<tr>
<td>7</td>
<td>B</td>
</tr>
<tr>
<td>8</td>
<td>C</td>
</tr>
<tr>
<td>9</td>
<td>B</td>
</tr>
<tr>
<td>10</td>
<td>B</td>
</tr>
<tr>
<td>11</td>
<td>A</td>
</tr>
<tr>
<td>12</td>
<td>E</td>
</tr>
<tr>
<td>13</td>
<td>A</td>
</tr>
<tr>
<td>14</td>
<td>E</td>
</tr>
<tr>
<td>15</td>
<td>A</td>
</tr>
<tr>
<td>16</td>
<td>C</td>
</tr>
<tr>
<td>17</td>
<td>E</td>
</tr>
<tr>
<td>18</td>
<td>E</td>
</tr>
<tr>
<td>19</td>
<td>B</td>
</tr>
<tr>
<td>20</td>
<td>A</td>
</tr>
<tr>
<td>21</td>
<td>B</td>
</tr>
<tr>
<td>22</td>
<td>D</td>
</tr>
<tr>
<td>23</td>
<td>B</td>
</tr>
<tr>
<td>24</td>
<td>B</td>
</tr>
<tr>
<td>25</td>
<td>D</td>
</tr>
<tr>
<td>26</td>
<td>A</td>
</tr>
<tr>
<td>27</td>
<td>C</td>
</tr>
<tr>
<td>28</td>
<td>B</td>
</tr>
<tr>
<td>29</td>
<td>A</td>
</tr>
<tr>
<td>30</td>
<td>C</td>
</tr>
<tr>
<td>31</td>
<td>B</td>
</tr>
<tr>
<td>32</td>
<td>C</td>
</tr>
<tr>
<td>33</td>
<td>B</td>
</tr>
<tr>
<td>34</td>
<td>D</td>
</tr>
<tr>
<td>35</td>
<td>C</td>
</tr>
<tr>
<td>36</td>
<td>B</td>
</tr>
<tr>
<td>37</td>
<td>B</td>
</tr>
<tr>
<td>38</td>
<td>A</td>
</tr>
<tr>
<td>39</td>
<td>B</td>
</tr>
<tr>
<td>40</td>
<td>B</td>
</tr>
</tbody>
</table>