

תידון המדע הירושלמי תשס"ח - Jerusalem Science Contest 2008-2009

**Electromagnetic and Ionizing radiation**  
**Exam 14 - Creation Time and Rainbows**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Raw Score: \_\_\_\_\_

Percentage Score: \_\_\_\_\_ %

Proctor for this Examinaton: \_\_\_\_\_ Form: \_\_\_\_\_

**Choose the best answer**

- 1) According to Malbim...
  - A) The righteous represent the light mist after a rain because they are very spiritual
  - B) The righteous represent thick opaque clouds filled with water ready to nourish the land
  - C) The evil represent a light mist devoid of blessing for the land
  - D) None of the above
  
- 2) Concerning viewing pre-flood rainbows, Malbim feels
  - A) this was impossible to due thick cloud cover
  - B) was impossible as God had not yet created the rainbow
  - C) were normal occurences that were not significant
  - D) none of the above
  
- 3) The verse "These are the generations of the heavens and the earth when they were created; in the day that the Eternal God made earth and heavens" (Gen. 2:4) may demonstrate that our perception of billions of years is not exclusive of a 24 hour day perception. How does the verse do this?
  - A) The verse juxtaposes "generations" and "day".
  - B) Earth and heavens are compared to generations
  - C) First it says "heavens and earth" then it says "earth and heavens" and finishes by saying 'day'.
  - D) All of the above
  
- 4) How does Sforno define the covenant of the rainbow?
  - A) The inverse order of colors in the secondary of a double rainbow indicates God's displeasure
  - B) A full arc rainbow indcates God's pleasure
  - C) A rainbow indicates that it is God who controls rainfall.
  - D) None of the above
  
- 5) Both the Talmud and Nachmanides (Ramban) say that 'Bohu' is:
  - A) The Milky way galaxy
  - B) the spirit of God
  - C) all biological life forms
  - D) the building blocks of matter

- 6) Which of the following is the strongest indicator that , according to the Torah, time perception was not Earth-based during the days of creation is:
- A) All of the above equally demonstrate the same thing.
  - B) There was no Sun until day four
  - C) Adam was not created until the end of the sixth day.
  - D) According to the Torah, there was no Earth for the first two days.
- 7) When studying the brief biblical age of the universe, what error is commonly made?
- A) not choosing the proper location of perception
  - B) not choosing the proper event from which to calculate
  - C) not choosing the proper reference frame for calculation
  - D) No recorded errors are known ever to have been made in calculating the biblical age of the universe.
- 8) According to Malbim, the rainbow may symbolize...
- A) That all are created equally in the eyes of God
  - B) that rainfall will always be heavy if you keep the commandments
  - C) God's light manifested in the righteous as their good deeds
  - D) None of the above
- 9) Rav Kook's pre and post flood distinction is:
- A) Pre-flood, God had not yet created light refraction. Post flood, He did.
  - B) Pre-flood, the refractive index of water equalled that of air. Post flood, the indices were as they are today.
  - C) Pre-flood, people were supposed to serve God through thought. Post flood, through action
  - D) Pre-flood, one huge cloud. Post flood, frequent light showers.
- 10) Ramban (Nachmanides) preferred
- A) The Greek explanation of how rainbows work
  - B) to believe that rainbows did not exist before the flood
  - C) to believe that it was very cloudy before he flood
  - D) all of the above
- 11) According to Malbim , God's post flood covenant provided that....
- A) Evil activity will yield infrequent rainfall
  - B) During eras of evil activity, rainfall will be similar to pre-flood rainfall, but not as devastating
  - C) righteous activity will produce frequent light rain showers adequate to nourish crops
  - D) all the above answers are correct
- 12) Nachmanides (Rambam) derives his belief about the pre-flood existence of rainbows from the verse:
- A) " I shall see it" - וראיתה
  - B) "I placed" - נחתי
  - C) Both of the above
  - D) None of the above
- 13) What verse indicates that God has a perspective of time different from humanity?
- A) How can man know the years of your creation - איך ידע אדם שנות בריותיך
  - B) Understand the years of the generations - בינות שנות דור ודור
  - C) A thousand years in Your sight are as a day that passes - אלף ימים בעיניך כיום אתמול
  - D) None of the above

- 14) According to Sforno to whom was the sign of the rainbow primarily directed?
- A) to the children so that they tell their parents who will in turn repent.
  - B) to the righteous so that they urge the evil to repent
  - C) to nobody in particular
  - D) to the evil reminding them that they will be punished
- 15) What do Malbim and Sir Isaac Newton have in common?
- A) They both saw symbolism in Noah's rainbow
  - B) The number seven. Malbim talks about God's characteristics and Newton talks about the colors of a rainbow.
  - C) Nothing
  - D) The same birthday
- 16) What Rabbinic tradition may indicate that creation followed a time scheme from a perspective different from what we are accustomed to?
- A) The Talmudic statement - "Creation was different"
  - B) Rosh Hashannah is the anniversary of Adam's creation
  - C) The Midrash that states that God added 4 hours to the sixth day in order to finish his work
  - D) None of the above
- 17) According to Nachmanides (Ramban) biblical time starts....
- A) with the appearance of matter
  - B) with the creation of man
  - C) with the creation of the Sun
  - D) with one photon the size of a mustard seed
- 18) The unlikelihood of indiscriminate nature change prompted Kli Yakar to write that .....
- A) the rainbows were ignored during the lifetimes of great sages.
  - B) It never rained before the flood
  - C) one huge cloud covered the Earth before the flood.
  - D) all of the above
- 19) According to Malbim a major difference of pre vs. post flood rainfall was...
- A) the density of water
  - B) its frequency
  - C) the refractive index of pre-flood water was the same as air
  - D) There was no significant difference
- 20) "A word well spoken is like apples of gold in bowls of silver" (Prov 25:11) indicate that:
- A) The Torah reveals secrets to those who scrutinize it closely
  - B) Torah wisdom is a mixture of gold and silver
  - C) A scientist must choose her words carefully when making a presentation
  - D) discovery of unimportant information inevitably leads to the discovery of important information