



Vivekananda World School

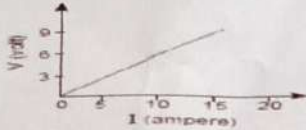
Bright Future Scholarship Program
Academic Session (2023-24)

Grade-10

General Instructions:

- There are 3 Sections
- Section -A Contains 15 questions in Science, Section - B Contains 20 questions in English , Section -C Contains 15 questions in Maths.
- All questions are Compulsory.
- There will be no negative marking.

1Q: The resistance whose V – I graph is given below is Section-A (Science)



- (A) $5/3 \Omega$ B) $3/5 \Omega$ C) $5/2 \Omega$ D) $2/5 \Omega$
- 2 Q: The speed of a car weighing 1500 kg increases from 36 km/h to 72 km/h uniformly. What will be the change in momentum of the car?
 (A) 15000 kg km/h B) 15000 kg m/s C) 54000 kg m/s D) 54000 g m/s
- 3 Q : Find the potential energy stored in a ball of mass 5 kg placed at a height of 3 m above the ground.
 (A) 121.20 J B)147.15 J C) 227.31 J D) 182.21 J
- 4 Q: Which sound waves are inaudible to human being
 (A) Infrasonic B) ultrasonic C) amplitude D) Both (A) & (B)
- 5 Q: The image shows the path of incident rays to a concave mirror.



- Where would the reflected rays meet for the image formation to take place?
 (A) Behind the mirror B) Between F and O C) Between C and F D) Beyond C
- 6Q: Which of the following reaction can also be termed as a thermal decomposition reaction?
 (A) Combination reaction B) Decomposition reaction C) Displacement reaction D) Double displacement reaction
- 7Q: Pneumatic Structure contains :
 (A) Metal B) Water C) Wood D) Compressed Air
- 8Q: Which of the below is the disadvantage of frame structure
 (A) Ease of construction B) Economy C) Speed of construction D) Span Length
- 9Q: Which of the following is the correct pair of atom and its atomic symbol?
 (A) Sulphur – Su B) Potassium – P C) Phosphorus –P D) Sodium- S
- 10Q: Which of the following statements about the electron is incorrect?
 A) It is a negatively charged particles B) The mass of the electron is equal to the mass of the neutron
 C) It is a basic constituent of all D) It is a constituent of cathode ray
- 11Q: The mode of nutrition in fungi
 (A) only saprotrophic (B) saprotrophic or parasitic (C) only parasitic (D) none of above
- 12Q: What is not possessed by bacteria?
 (A) membrane bound organelles (B) nucleus (C) nucleolus (D)all of these
- 13Q: Which section of DNA provides information for one protein?
 (A) Nucleus (B) Chromosome (C) Trait (D) Gene
- 14Q: In peas, a pure tall (TT) is crossed with a pure short plant(tt). The ratio of pure tall plants to pure short plants in the F2 generation is:
 (A) 1:3 (B) 3:1 (C) 1:1 (D) 2:1
- 15Q: A person sees an object closer to his eyes. What changes will take place in his eyes?
 (A) the pupil size will expand (B) the ciliary muscles will contract
 (C) the focal length of the eye lens will increase (D) the light entering the eye will be more

Section -B (English)

- 16Q : Rohan is so magnanimous that everyone is always _____ to help him in his project.
 (A) eager (B) enthusiastic (C) reluctant (D) ignorant
- 17Q : _____ a country's current account is in deficit, it would imply that its imports of goods and services are higher than its income from exports and remittances from non-residents.
 (A) As (B) Given (C) Unless (D) If
- 18Q: Since my father was an _____ from India, he brought his Indian culture and traditions to the United States with him.
 (A) emigrant (B) immigrant (C) native (D) citizen

19Q: All as noun

- (A) He lost his all in speculation (B) All men are mortal
(C) He was all alone when I saw him (D) All spoke in her favor

20Q: Which is the expression that cannot be used for offering help?

- (A) Can/May I help you? (B) I will help you
(C) Do you need any help? (D) Would you like me to do that for you?

Directions (next 3 questions): In the following questions the 1st and the last parts of the sentence are numbered Z1 & Z6. The rest of the sentence is split into four parts and named P, Q, R and S. These four parts are not given in their proper order. Read the sentence and find out which of the four combinations is correct. Then find the correct answer and indicate it in the Answer-sheet.

21Q: Z1. The Hound of Baskervilles was feared by the people of the area.

- P. Some people spoke of seeing a huge, shadowy form of a hound at midnight on the moor.
Q. But they spoke of it in tones of horror.
R. Nobody had actually seen the hound.
S. This shadowy form did not reveal any details about the animal.

Z6. The Hound of Baskervilles remains an unsolved mystery.

- (A) PQRS (B) PSRQ (C) SPQR (D) SPRQ

22Q: Z1. Ram Mohan Roy was associated with several newspapers.

- P. Many educationists protested vigorously against these measures.
Q. But this came to grief soon after the enactment in 1823, of new measures for the control of the press.
R. He brought out a bilingual, Bengali-English magazine.

S. Later, desiring an all-India circulation, he published a weekly in Persian, which was recognized then as the language of the cultured classes all over India.

Z6. Ram Mohan Roy even addressed a petition to the king - in - Council in England.

- (A) QPRS (B) QSPR (C) RSPQ (D) SPQR

23Q: Z1. Different countries show different patterns of growth.

- P. Many others have a high birth rate with a low death rate.
Q. Some have a high birth rate and still have a high death rate.
R. The developing countries show the most rapid growth rate.
S. Some others like the European nations have a low birth rate and a low death rate.

Z6. Compared to this in Europe the growth rate is low.

- (A) PQSR (B) QSPR (C) RSQP (D) SPQR

24Q: Choose most similar of the word 'PLEASANTLY'

- (A) extremely (B) delightfully (C) charming (D) friendly

Directions (next 2 questions): Which of the phrases (a), (b), (c) and (d) given below each sentence should replace the phrase printed in **bold** in the sentence to make it grammatically correct?

25Q: As Anuj was familiar with the road to Neeraj's house, he **lead the way**.

- (A) led the way (B) led away (C) leading ways (D) lead ways

26Q: Although he was new to the field of painting, Sharad **give it a go**.

- (A) gave goes (B) gives his go (C) gave it a go (D) giving it goes

Directions (next 4 questions): Read the following passage carefully and answer the questions given below it. Certain words/phrases have been printed in bold to help you locate them while answering some of the questions.

Sunil and Puran lived in the same village. While Puran owned the largest shop in the village, Sunil was a poor farmer. Both had large families, with many sons, daughters-in-law and grandchildren. One day, Sunil, tired of not being able to make ends meet, decided to leave the village and move to the city where they were sure to make enough to feed everyone. They said their goodbyes, packed their few belongings and set off. When night fell, they stopped under a large tree. There was a stream running nearby, where they could refresh themselves. Sunil told his sons to clear the area below the tree. He told his wife to fetch water. He instructed his daughters-in-law to make up the fire and started cutting wood from the tree himself. Now, in that branches of the tree sat a thief. He watched as Sunil's family worked together. He also noticed they had nothing to cook. Sunil's wife too thought the same, for she said to her husband, "Everything is ready. But what shall we eat?" Sunil raised his hands to heaven and said, "Don't worry. He is watching all this from above. He will help us."

The thief was worried. He had seen that the family was large and worked well together. Surely they did not know he was hiding in the branches. He decided to make a quick **getaway**. He climbed down swiftly when they were not looking and ran for his life. But, he left behind his bundle of stolen jewels and money, which dropped down into Sunil's lap. He opened it and jumped with joy when he saw the contents. The family promptly gathered its belongings and returned to the village. There was great excitement when they told everyone how they got rich.

Puran thought this was a nice quick way to earn some money! He commanded his family to pack some clothes and they set off as if on a journey. They stopped under the same tree and Puran started commanding everyone as Sunil had done. But no one in his family was willing to obey orders. They were used to having servants wait on them - so the one who went to the river to fetch water had a nice bath. The one who went to gather wood for the fire went off to sleep beneath the tree. And Puran only ordered everyone about, not conversation that they had rehearsed carefully. Puran's wife said, "Everything is ready. But what shall we eat?" Puran raised his hands upwards and said, "Don't worry. He is watching all this from above. He will help us".

At this, the thief jumped down from the tree, knife in hand. Seeing him, everyone started running helter skelter to save themselves. The thief stole everything. Puran and his family had to return to the village empty handed, having lost all the jewellery and gold they had taken with them.

27Q: Which of the following cannot be said about Sunil's family?

- (a) They respected and obeyed Sunil.
(b) They were so poor that they sometimes had to starve.
(c) They had no friends in the village when they were poor.

- (A) None (B) Only (C) (C) Only (B) and (C) (D) Only (B)

28Q: Why did Sunil and his family decide to camp under the thief's tree?

- (A) Being a large family they knew they could capture the thief. (B) It was a convenient spot to camp for the night.
(C) It was the only tree large enough to shelter the whole family. (D) There was a stream nearby and wood to build a house.

29Q: What made Sunil utter the phrase, "He is watching all this from above"?

- (A) He had spotted the thief and wanted to frighten him off. (B) He was telling his wife to trust God to look after them.
(C) It was a warning to his family members to stick together. (D) He was begging the thief for help to feed his family.

30Q: How did the villagers react to Sunil's newfound wealth?

- (A) They tried hard to coax him to reveal the secret of his wealth. (B) They followed his example and became more devout.
(C) They pretended to be happy for him but were secretly jealous. (D) There was great excitement.

Direction: Attempt (Q: 31 -33) Change the voice of the following sentences

1. Whom does he look for?

- (A) He is looked after for whom? (B) Who is looked after for him? (C) Who is looked for by him? (D) He is looked after by whom?

2. Look at the poll results-do they inspire hope?

- (A) Let the poll results be looked is hope inspired by them? (B) Let the poll results be looked at-is hope inspired by them?
(C) Let the poll results be looked at-has hope been inspired by them? (D) Let the poll results be looked at-is hope being inspired by them?

3. They first sun-dried the garbage for one to three days to bring down the moisture level.

- (A) The garbage was first sun-dried for one to three days to bring down the moisture level.
(B) The moisture level of the garbage came down when it was sun-dried for one to three days.
(C) One to three days of sun-drying brought down the moisture level of the garbage.
(D) The moisture level was brought down by sun-drying the garbage for one to three days.

III. Change the speech

1. The old man said, "God is everywhere."

- (A) The old man said that God was everywhere. (B) The old man said that God has been everywhere.
(C) The old man asked that God is everywhere. (D) The old man said that God is everywhere.

2. He said to me, "Were they going to school now?"

- (A) He asked me if they had been going to school then. (B) He asked me if they were going to school then.
(C) He asked me if they have been going to school then. (D) He asked me if they have been going to school now.

Section -C (Mathematics)

36Q: A bag has 3 red balls and 5 green balls. If we take a ball from the bag, then what is the probability of getting red balls only?

- (A) $\frac{3}{8}$ (B) $\frac{5}{8}$ (C) $\frac{3}{5}$ (D) $\frac{8}{3}$

37Q: If a tower 6m high casts a shadow of $2\sqrt{3}$ m long on the ground, then the sun's elevation is:

- (A) 60° (B) 45° (C) 30° (D) 90°

38Q: 30th term of the A.P: 10, 7, 4, ..., is

- (A) 97 (B) 77 (C) -77 (D) -87

39Q: The sum of two numbers is 27 and product is 182. The numbers are:

- (A) 12 and 13 (B) 13 and 14 (C) 12 and 15 (D) 13 and 24

40Q: Angles of a triangle are in the ratio 2: 4: 3. The smallest angle of the triangle is

- (A) 20° (B) 40° (C) 60° (D) 80°

41Q: Which of the following can also be represented as sample statistics?

- (A) Lowercase Greek letters (B) Roman letters (C) Associated Roman alphabets (D) Uppercase Greek letters

42Q: Which method used to examine inflation rate anticipation, unemployment rate, and capacity utilisation to produce products?

- (A) Data exporting technique (B) Data importing technique (C) Forecasting technique (D) Data supplying technique

43Q: A diagonal of a parallelogram divides it into two congruent:

- (A) Square (B) Parallelogram (C) Triangles (D) Rectangle

44Q: In a parallelogram, opposite angles are:

- (A) Equal (B) Unequal (C) Cannot be determined (D) None of the above

45Q: The sides of a triangle are in the ratio of 3: 5: 7 and its perimeter is 300 cm. Its area will be:

- (A) $1000\sqrt{3}$ sq.cm (B) $1500\sqrt{3}$ sq.cm (C) $1700\sqrt{3}$ sq.cm (D) $1900\sqrt{3}$ sq.cm

46Q: $x^2 - x$ is _____ polynomial.

- (A) Linear (B) Quadratic (C) Cubic (D) None of the above

47Q: The value of $f(x) = 5x - 4x^2 + 3$ when $x = -1$, is:

- (A) 3 (B) -12 (C) -6 (D) 6

48Q: When the number 210 is increased in the ratio 5: 7, the new number is

- (A) 150 (B) 180 (C) 294 (D) 420

49Q: If the weight of 12 sheets of thick paper is 40 grams, how many sheets of the same paper would weigh 2500 grams?

- (A) 750 (B) 800 (C) 850 (D) 950

50Q: The surface area of cuboid-shaped box having length=80 cm, breadth=40cm and height=20cm is:

- (A) 11200 sq.cm (B) 13000 sq.cm (C) 13400 sq.cm (D) 12000 sq.cm