

3. Write purpose statements for TWO of the following: (2 × 1 = 2)
- (a) an aerial
 - (b) an experiment
 - (c) a litmus test
4. Use any TWO of the following words in sentences of your own first as a noun and then as a verb. (2 × 1 = 2)
- (a) Produce
 - (b) Project
 - (c) Convict.
5. Fill in the blanks with suitable forms of words given: (8 × ¼ = 2)
- | Noun | Adjective | Person concerned |
|-----------------|------------|------------------|
| (a) _____ | Geological | _____ |
| (b) Chemistry | _____ | _____ |
| (c) Environment | _____ | _____ |
| (d) _____ | Industrial | _____ |
6. Give the numerical expressions for the following: (4 × ½ = 2)
- (eg): a lamp of a power of 60 watts : a sixty watt bulb
- (a) a walk of five kilometers
 - (b) a tank with a capacity of 2000 litres
 - (c) a committee of six members
 - (d) a project proposal of Rs.10 Crores.
7. Convert the following into yes or no questions: (4 × ½ = 2)
- (a) Science is beneficial to mankind.
 - (b) Einstein is a genius.
 - (c) Science and technology go together.
 - (d) The galaxies are increasing in numbers.
8. Fill in the blanks with suitable articles: (4 × ½ = 2)
- _____ secret of _____ successful sandcastle could aid
 _____ revival of _____ ancient eco-friendly building
 technique, according research led by Durham University.

9. Add the appropriate prefix to the following words to match their meanings. (4 × ½ = 2)
- (a) _____ rail; railway system in which trains travel along a track consisting a single rail.
 - (b) _____ gas; gas that is produced from organic life.
 - (c) _____ tension; abnormal blood pressure.
 - (d) _____ urban; partially rural and partially urban.
10. Write four instructions to school children to help them maintain a green environment. (4 × ½ = 2)

PART B — (5 × 16 = 80 marks)

11. Read the following passage carefully and answer the questions given at the end:

From time immemorial man must have looked at the clear night sky and wondered what the heavenly objects were supposed to be. He must have compared and contrasted their appearance with that of the Sun during the day. From where does the sun appear in the East and where does it go in the west? Why do most bodies move round a northerly direction, the direction of the Pole Star, whereas a few exceptional ones seem to move in irregular ways? Why is the moon, which apparently is of comparable size to the Sun, considerably less bright than the Sun? These questions must have occurred to the curious among the mankind in the past.

Now, there is a tendency in the human mind to ascribe strange natural phenomena to supernatural causes. This tendency runs counter to the scientific approach which is born out of curiosity and thrives on a critical assessment. We see an excellent example of the two tendencies in man's approach to the motion of heavenly bodies, The question raised above could not be answered straight way and so the former tendency was dominant. It is not surprising, therefore that man ascribed supernatural powers to the Sun, the Moon and Stars. Of these those with the irregular motions were singled out as having greater power because their irregularity implied that they could move across the 'sky at will'. These are none other than the planets of our Solar System. Human imagination being what it is, it was but another step from this to argue that these powerful planets control human destiny. We could understand and sympathize with this view, shared by most primitive cultures, because in those days, more than two thousand years ago, the answers to the above questions were not in sight. But today, when the scientific approach has provided the answers, the situation should be entirely different.

How the scientific outlook prevailed and led to the solution of the mystery is an interesting story which I will briefly narrate. Among the primitive cultures records were kept of the positions of some important heavenly bodies. The reasons for these records were primarily utilitarian. For man had learned to

connect the changing of seasons with the changing position of these objects in the sky. Since agriculture was strongly dependent on seasons, it was necessary to forecast these, and this is where the primitive astronomical observations helped.

(a) Complete the following: (5 × 1 = 5)

(i) The heavenly objects are _____

- (1) The sun (2) The moon
(3) The stars (4) All of the above

(ii) Northerly direction is the direction of _____

- (1) The moon (2) The pole star
(3) The sun (4) The earth

(iii) Human fate is regulated by human

- (1) reason (2) emotion
(3) stars (4) truth

(iv) _____ runs counter to the scientific approach.

- (1) superstition (2) nature
(3) man (4) culture

(v) The primitive societies kept records of the movements of heavenly bodies because such records were _____.

- (1) interesting (2) mysterious
(3) wonderful (4) useful

(b) Mention whether the following statements are TRUE or FALSE: (6 × 1 = 6)

- (i) Man in the past asked many questions about the heavenly objects.
(ii) Man has found a number of answers now.
(iii) The size of the sun and the moon is the same.
(iv) Man did not believe in the supernatural powers of the sun.
(v) Science has solved all mysteries of the world.
(vi) There is a close connection between the change of the seasons and the position of the heavenly objects.

- (c) Choose the definition which best suits the given words as they are used
In the text: (5 × 1 = 5)

(i) immemorial

- (1) existing for a short time
- (2) existing for a long time
- (3) without any existence
- (4) dead and gone

(ii) apparently

- (1) seemingly (2) considerably
- (3) largely (4) realistically

(iii) ascribe

- (1) distribute (2) contribute
- (3) attribute (4) pay tribute

(iv) singled out

- (1) chosen (2) described
- (3) entitled (4) selected badly

(v) prevailed

- (1) succeeded (2) failed
- (3) existed (4) disappeared

12. (a) Write two paragraphs of 100 words each on the importance of forest resources and on the measures that you would recommend to preserve forest resources. (16)

Or

- (b) Write two coherent paragraphs of 100 words each on “Causes of environmental pollution”. (16)

13. (a) Imagine that you are a Safety Engineer of Nuclear Power plant. There was an explosion due to the failure of control rods. Most of lives are severely affected due to the radiation. The Chairman of the Atomic Energy Commission has asked you to submit a detailed report on the disaster together with your recommendation to avert such a disaster in future. Prepare a report accordingly. (16)

Or

- (b) Write a set of eight recommendations to tide over the power cut during summer. (16)

14. (a) You are going to attend a scholarship interview. Prepare a checklist of items that you should check before going for the interview. (16)

Or

- (b) Write a set of eight instructions that are to be followed by students before they begin their chemistry practical examination. (16)
15. Write an essay in 300 words on ONE of the following topics. (16)
- (a) Technology has made the modern man lazier, more materialistic and more technology dependent than ever before!

Or

- (b) Communication skills are a must in the competitive world we live in.
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