

8 Maths Rational Numbers. All questions (parts) carry one mark each

1. Fill in the blanks to make the statements true.

- The reciprocal of a positive rational number is _____.
- The reciprocal of a negative rational number is _____.
- Zero has _____ reciprocal.
- The numbers _____ and _____ are their own reciprocal.
- If y be the reciprocal of x , then the reciprocal of y^2 in terms of x will _____.
- The negative of 1 is _____.
- The negative of a negative rational number is always a _____ rational number.
- Rational numbers can be added or multiplied in any _____.
- The two rational numbers lying between -2 and -5 with denominator as 1 are _____ and _____.

2. State whether the statements are true (T) or false (F).

- If $x + y = 0$, then $-y$ is known as the negative of x , where x and y are rational numbers.
- The negative of the negative of any rational number is the number itself.
- The negative of 0 does not exist.
- The negative of 1 is 1.
- For all rational numbers x and y , $x - y = y - x$.
- For all rational numbers x and y , $x \times y = y \times x$.
- For every rational number x , $x \times 0 = x$.
- For every rational numbers x , y and z , $x + (y \times z) = (x + y) \times (x + z)$.
- For all rational numbers a , b and c , $a(b + c) = ab + bc$.
- 1 is the only number which is its own reciprocal.
- -1 is not the reciprocal of any rational number.
- For any rational number x , $x + (-1) = -x$.
- For rational numbers x and y , if $x < y$ then $x - y$ is a positive rational number.
- If x and y are negative rational numbers, then so is $x + y$.
- Between any two rational numbers there are exactly ten rational numbers.
- Rational numbers are closed under addition and multiplication but not under subtraction.
- Subtraction of rational number is commutative.

8 Sc Crop production and management (Q 1-11 : 1 mark each; 12-18: 2 marks each; 19-20 : 4 marks each;)

1(a). State whether the following statements are True or False. Correct the false statements.

- Using good quality seed is the only criterion to get high yield.
- Growing different crops in different seasons in the same field will deplete the soil of nutrients.
- All crop plants are sown as seeds in the field.
- Cells of root nodules of leguminous plants fix nitrogen.
- Freshly harvested grains must be dried before storing.

1(b). Pick out the odd one from the following words and give reason for it. : ---

Plough, Seed Drill, Hoe, Chain Pump, Sickle

- What do you understand by harvesting and threshing? and write in the tabular column given below: Maize, paddy, mustard, pea, gram, wheat, groundnut, cotton.
- What are Kharif season crops? Give examples.
- What is weeding and why is it a necessary process in a field. (b) What are the advantages of using this tool?
- Classify the following crops into *Khariff* and *Rabi* crops and write in the tabular column given below: Maize, paddy, mustard, pea, gram, wheat, groundnut, cotton.
- What are Rabi season crops? Give examples
- (a) Name the tool used with a tractor for sowing seeds
- Differentiate between plough and hoe? .
- What do you understand by the term preparation of soil? Explain various steps/aspects.
- Paddy is a major cereal crop in our country.
 - In which season is paddy cultivated?
 - Discuss the method of sowing.
 - What measures must be taken to prevent spoilage and insect attack of harvested grains.

1. Symposium Spoken English and Personality Development Programme (Activity level 1)

Speaker1 Roll No. 1, 6, 11, 16, 21, 26, 31, 36

Speaker3 Roll No. 3, 8, 13, 18, 23, 28, 33, 38

Speaker5 Roll No. 5, 10, 15, 20, 25, 30, 35, 40

Speaker2 Roll No. 2, 7, 12, 17, 22, 27, 32, 37

Speaker4 Roll No. 4, 9, 14, 19, 24, 29, 34, 39

and so on

8 Symposium What are Resources?

Speaker 1. Good morning, friends. We welcome you all for our symposium “What are Resources? The topic will be covered by,,,and A resource is anything that can be used to satisfy human wants. Resources include (a) things which are present in the environment and which humans use directly and (b) things which humans transform into usable materials to satisfy their needs. It is the utility of a product or service which makes it a resource. Resources like land, rivers, plants, animals and minerals gain meaning and value only with reference to the wants of people. Minerals like iron and manganese became highly valuable resources only after humans understood the value of steel and learnt that it could be made from iron. Nowwill discuss Classification of Resources

Speaker 2. Thank You, Resources can be broadly classified into natural resources, human-made resources and human resources. Natural Resources are derived from nature. Air, water found in the rivers, lakes and ponds, sunlight, soil, minerals, natural vegetation and wildlife are some examples of natural resources. Natural resources can be further classified in four different ways. (a) On the basis of origin which include Biotic resources and Abiotic resources (b) On the basis of continuity in supply which include Renewable resources and Non-renewable resources (c) On the basis of development and use. These are of two types - Actual or developed resources and Potential resources lastly (d) On the basis of distribution which include Ubiquitous Resources and localised resources. Nowwill discuss about various types of resources in detail.

Speaker 3. Thank You, Biotic resources include all living organisms on the Earth-the flora (vegetation) and the fauna (animal life). Human beings are biotic resources. Abiotic resources are non-living substances used by human beings, such as soil, air and sunlight. Actual or developed resources are resources which have already been developed, and which are presently being used. The iron-ore and coal deposits in Jharkhand, the petroleum deposits in West Asian countries, gold and diamond deposits in South Africa and the rich black soils of the Deccan Plateau in Maharashtra are some examples of actual resources. Potential resources are those resources which could be of use in the future due to breakthroughs in technology, or changing circumstances. For example bio fuel an attractive option due to soaring prices of petroleum in future. Solar energy and bio wastes were considered as potential sources of energy in the past. Today they are actual power resources. There are wind farms in Tamil Nadu and Gujarat which are devoted to producing wind energy. Nowwill further elaborate on the topic.

Speaker 4. Thank You, Next type include Renewable resources. These are the resources that get regenerated or replenished rapidly. Some resources replenish themselves (like wildlife and forests) and some can be replenished with the help of physical, chemical and mechanical processes (like soil and water). In comparison Non-renewable resources are those resources which cannot be replenished or renewed, for example metallic minerals. Some other resources, like coal, take thousands of years to get naturally replenished, which is several times more than the human life span. They are also called non-renewable resources. If we use them carelessly, we may run out of these resources. Next category of resources include Ubiquitous versus localised resources. Ubiquitous are the resources which are found everywhere. For example, air is a ubiquitous resource as it is found everywhere. In contrast to this **Localised resources** are distributed unevenly across the world, and are only found concentrated in certain regions. Copper, iron-ore, gold, diamonds and silver are some examples. Nowwill discuss Human made resources

Speaker 5. Thank You, Human-made Resources are those which humans create using technology and skills. In the process, natural substances are transformed into useful products. Even the technology used to make such products is a human-made resource. Aircrafts, machinery, buildings, roads and railway tracks are some examples of human-made resources. Institutions like schools, and services like banking, are also human-made resources. Human themselves also a type of resource. Human resource consists of people. All other resources get meaning and value based on the needs and requirements of human beings. Therefore, human resource and its proper development is of vital importance. The creative mind of humans, and the desire to satisfy their needs, helped them produce different services and products. For example iron-ore was used to build machines, while cotton was spun into yarn, woven into cloth and tailored into outfits. People with healthy minds and healthy bodies, who are skillful and aware, are more productive. Governments spend a lot of money and effort on the health and education of their people. Human resource is the most important resource. Without this resource others are of little use. With this we come to an end of our symposium. Thank You.

2. Quiz- <http://www.learnmyway.in> 8(04) DOI Apr 08 2016.Q.Sc. Crop production and management;

3. Electronic test - <http://www.learnmyway.in> 8(04) DOI Apr 08 2016.ET.Sc. Crop production and management:

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