

Topic :- Microbes In Human Welfare

- 1 **(d)**
Nosema bombycis is a protozoan, which causes the epidemic disease pebrine in silkworms, attacks all tissues and all developmental stages from embryo to adult. In advanced infections, small brown spots cover the body of the silkworm.
- 2 **(b)**
Anthrax is a fatal human disease caused by the bacterium *Bacillus anthracis*. This was used as a bioweapon agent in America in September 2009.
- 3 **(c)**
Gambusia (mosquito fish) feeds on mosquito larvae and is therefore, used as larvicial.
- 4 **(b)**
Biogas produced by fermentation of manure, sewage, cattle dung, etc., predominantly comprises methane and carbon dioxide. The major component of biogas is methane (about 50-68%). The other gases are carbon dioxide (25-35%), hydrogen (1-5%), nitrogen (2-7%) and rarely hydrogen sulphide
- 5 **(a)**
Chicory is the chief substitute of coffee, which is obtained from the roots of *Cichorium intybus*, which is a member of family-**Asteraceae**. The dried roots of this plant are roasted, pulverised and mixed with coffee powder.
- 6 **(d)**
Commercially, katha is obtained from heart wood of *Acacia catechu* of family-Mimosaceae.
- 7 **(b)**
Trichoderma sp. has proved a useful microorganism for biological control of soil borne

- plant pathogens. It inhibits pathogens through release of gliotoxin, viridian, gliovirin and trichodermin like substances
- 8 **(a)**
Biogas is pathogen free because anaerobic digestion inactivates pathogens and parasites and is quite effective in reducing the incidence of water borne diseases.
- 9 **(d)**
Raphanobrassica and *Triticale* are intergeneric hybrids. *Raphanobrassica* is the result of cross between *Raphanus* (radish) and *Brassica* (cabbage).
- 11 **(b)**
Silk thread is obtained from the cocoon of *Bombyx mori*. It contains a water soluble protein, **sericin**.
- 12 **(c)**
Bajra is the most nutritious cereal it has more proteins than other cereals.
- 13 **(a)**
CO₂ gas is released during the process of fermentation gives the puffy appearance to dough
- 15 **(b)**
Integrated Pest Management (IPM) discourages the excessive use of chemical pesticides. IPM involves use of different pest control methods, better agricultural practice like crop rotation, sanitation, etc.
- 16 **(a)**
Fagopyrum esculentum is a pseudocereal.
- 17 **(b)**
Rhizobium leguminosarum is a symbiotic bacteria found in root nodules of legume. This bacterium has nitrogen *nif* gene and fixing N₂. Soyabean is a legume. Thus, *Rhizobium* is used as a biofertilizer for raising soyabean crop.
- 18 **(b)**
Hybrid vigour is the increased vigour or offspring over their both of the parents. Such offsprings (hybrids) are obtained from a cross between two genetically different pureline varieties (parents).
- 19 **(b)**

Roquefort cheese is formed by ripening with the fungi *Penicillium roqueforti* for a particular flavor

20 (c)

A fertilizer, which contains only one nutrient is known as straight fertilizer or simple fertilizer.

ANSWER-KEY										
Q.	1	2	3	4	5	6	7	8	9	10
A.	D	B	C	B	A	D	B	A	D	B
Q.	11	12	13	14	15	16	17	18	19	20
A.	B	C	A	C	B	A	B	B	B	C

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