

Episode No – 40
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Faculty: Smitha. J

BIOLOGY IN HUMAN WELFARE

Microsporium, a pathogen for Ringworm disease in Humans belongs to the same Kingdom of organisms as that of

- a) Ascaris, a round worm
- b) Rhizopus, a mould
- c) Taenia, a tapeworm
- d) Wuchereria, a filarial worm

Ans: b

Which diagnostic technique will be recommended for a patient suspected to be HIV positive?

- a) WIDAL
- b) MRI
- c) ELISA
- d) Ultra sound

Ans: C

In which of the following disease we can expect the production of Interferons :

- a) Typhoid
- b) Malaria
- c) Amoebiasis
- d) Common Cold

Ans: d

Choose the wrong statement from the following :

- a) Antiretroviral drugs are only partially effective in the treatment AIDS.
- b) HIV spreads by sexual contact with infected person.
- c) The period between the infection and appearance of AIDS symptoms may vary from a few hours to a week
- d) HIV virus has RNA as its genetic material

Ans: c

Which one of the following is an incorrect statement with respect to Malignant tumor?

- a) Tumor cells will remain confined to original location
- b) Tumor cells exhibit rapid divisions
- c) The tumor grows rapidly
- d) Tumor cells damage the surrounding normal cells

Ans: a

The use of anti-histamine drugs to treat allergy helps

- a) in curing allergy
- b) to build resistance against allergens
- c) to reduce allergic symptoms
- d) to promote production of IgE.

Ans. c

The narcotic drugs Charas, Hashish and Ganja are extracted from:

- a) Hemp plant
- b) Coca plant
- c) Poppy seeds
- d) Ergot

Ans: a

Select the wrong statement for Alcoholism.

- a) Major causes for liver cirrhosis.
- b) Linked to recklessness, vandalism and violent behaviour .
- c) Educating and counseling does not help.
- d) Suffers from withdrawal symptom on abrupt discontinuation.

Ans: c

Identify the correct pairing

- a) Poultry – Bombyx mori
- b) Apiculture – Labeo rohita
- c) Sericulture – Apis indica
- d) Pisciculture – Catla catla

Ans: d

Select the wrong statement regarding MOET

- a) Hormones with FSH like activity is used to induce super ovulation
- b) Unfertilized eggs are extracted from the animal for IVF
- c) Surrogate mothers are used for embryo transfer
- d) Large number of desired offsprings are obtained in a short time

And: b

Mule is an offspring obtained by

- a) Interspecific hybridization of Male horse and Female donkey
- b) Intraspecific hybridization of Male horse and Female donkey
- c) Interspecific hybridization of Male donkey and Female horse
- d) Interspecific hybridization of Male donkey and Female horse

Ans:C

Given below are the steps involved in Plant breeding to obtain a new genetic variety.

Choose the option which gives the correct sequence.

- i) Evaluation and selection .
 - ii) Cross hybridization among the selected parents.
 - iii) Germplasm collection.
 - iv) Testing, release and commercialization of new cultivars.
 - v) Selection and testing of superior recombinants.
- a) i) , ii), iii) , iv) and v)
 - b) iii), i), ii), v) and iv)
 - c) iii), ii), i), v) and iv)
 - d) iii), i), v), iv) and ii)

Ans: b

In plant tissue culture technique the tissue used for the recovery of healthy plants from diseased plant is

- a) Parenchyma
- b) Apical and axillary Meristem
- c) Collenchyma
- d) Lateral meristem

Ans: b

Methylophilus methylotrophus yeilds

- a) Methane
- b) Single cell proteins
- c) Starch
- d) Molasses

Ans: b

Identify the non symbiotic biofertilizer

- a) Azotobacter
- b) Anabena
- c) Rhizobium
- d) Vesicular Arbuscular Mycorrhiza

Ans; a

Pick out the mismatched pair

- a) Yeast- Ethanol
- b) Streptomycetes- antibiotic
- c) Coliforms- Vinegar
- d) Methanogens- Gobar gas

Ans:c

Bottled fruit juices are clear due to action of

- a) lipase and Protease
- b) Protease and Streptokinase
- c) Pectinase and Protease
- d) Streptokinase and Lipase

Ans: c

Insulin obtained from animal source is not preferred for diabetic patients. The reason is:

- a) Cost of production is very high.
- b) May cause allergic reactions.
- c) Totally different from human insulin.
- d) Does not work efficiently

Ans: b

Choose the correct answer. Endotoxins obtained from Bacillus thuringiensis :

- a) Acts as a toxin to the bacteria
- b) Gets released in the gut of the insect larvae and kills it.
- c) Destroys the eggs of the insect.
- d) Paralyzes the insect when sprayed on them.

Ans: b

Which of the following statement is incorrect with respect to Biogas Production?

- a) The technology was developed by the combined efforts of IARI and KVIC
- b) Methanogens which are involved in biogas production are also present in the rumen of cattle
- c) The predominant gases are CO₂ and H₂
- d) Methanobacterium is found in the anaerobic sludge during sewage treatment.

Ans: c

Nobel Laureate Norman.E.Borloug is credited with

- a) Developing high yielding semi-dwarf rice varieties like IR-8 and Taichung Native-I.
- b) Introducing high yielding semi dwarf varieties Jaya and Ratna.
- c) Introducing high yielding millets resistant to water stress in India.
- d) High yielding semi dwarf wheat varieties.

Ans: d

Somatic hybridization is a technique which involves

- a) Fusion of vegetative naked protoplasts
- b) Fusion of intact plant cells
- c) Fusion of sex cells
- d) Fusion of gamete and somatic cell.

Ans: a

Atlas 66 is

- a) Iron and Calcium enriched Spinach
- b) Biofortified Maize rich in Lysine and Tryptophan
- c) Iron fortified Rice
- d) Biofortified wheat rich in Protein

Ans: d

Identify the wrongly matched pair

- a) Trichoderma polysporum- Cyclosporin- A
- b) Propionibacterium sharmanii – Swiss Cheese
- c) Penicillium roqueforti- Penicillium
- d) Monascus purpureus - Statins

Ans: c

Mung bean variety developed by mutation breeding is resistant to:

- a) Yellow mosaic virus and powdery mildew.
- b) Aphids.
- c) Shoot and fruit borers.
- d) Brown rust

Ans: a

On which micro-organism was Alexander Fleming working on when he discovered Penicillin?

- a) Staphylococcus
- b) Streptococcus
- c) Streptomyces
- d) Saccharomyces

Ans: a