

BACTERIOLOGY AND MYCOLOGY

- The most commonly used endospore stain- Schaeffer-Fulton stain
- Capsule of *B. anthracis* is made of – D-glutamic acid
- Teichoic acid in Gram-positive bacterial cell wall has- Glycerol/ribitol
- Archaeobacterial cell walls usually consists of – Proteins and polysaccharides
- Metachromatin granules serves as a reserve of – Inorganic phosphate
- The chemi-osmotic mechanism of ATP synthesis proposed by- Peter Mitchell
- Reducing media for anaerobic bacteria contains- Na-Thioglycolate
- *Mycobacterium leprae* is usually isolated in- Armadillos
- Selective media for *S.typhi* is – Bismuth sulphite agar
- Selective media for *Staphylococcus aureus* is- Mannitol Salt Agar
- Paraffin and mineral oils are often sterilized by- Hot air oven
- Sterilizing agent used in space crafts is- Ethylene oxide
- Test used to find the carcinogenicity of mutagens is- Ames test
- Three kingdom classification of bacteria proposed by- Carl Woere
- Pyrogen induced by endotoxins is – IL-1
- Lab test to detect the presence of endotoxins in preparations- Limulus assay
- Resolving power of a compound microscope is – 0.2λ m
- Heat resistance of spores is due to presence of – Dipicolinic acid
- Target site of polymyxin is- Bacterial cell membrane
- Thickness of Gram+ve and Gram-ve cell walls are- 20-80nm and 2-7nm respectively
- Most abundant membrane protein of Gram-ve bacterial outer membrane- Braun's lipoprotein
- Non-motile asexual sporangiospores of phycomycetes is – Aplanospores
- Exogenously borne sexual spores are known as – Basidiospores
- 'Pseudohyphae' is characteristic of – *Candida albicans*
- 'North American blastomycosis' is caused by- *Blastomyces dermatitidis*
- 'European blastomycosis' is caused by- *Cryptococcus neoformans*
- Asexual spores produced by fragmentation of hyphae is – Arthrospore

- Staining used for detection of fungi in pathological specimens- Periodic acid Schiff stain
- Media used for stimulating production of chlamydospores of *C. albicans*- Corn meal agar.
- Method used for observing the development of spores and hyphae of fungus is called- Block-slide culture technique.
- *Mucor* is distinguished from other members of *Phycomycetes* by- Absence of rhizoids
- Asexual spores of *Ascomycetes* are known as- Conidiospores
- ‘Bottle bacillus’ is the synonym for- *Pityrosporum ovale*
- ‘Pseudoglanders’ or ‘Japanese Farcy’ caused by *Histoplasma capsulatum*
- ‘Fluffy colonies’, ‘Powdery colonies’ and ‘Lemon yellow colonies’ are produced by- *Microsporum distortum* , *M. gypseum* and *M. canis* respectively.
- Most potent toxin producing aflatoxicosis is – B1
- ‘Facial eczema’ in cattle is caused by - *Pithomyces chartarum*
- “Farmer’s Lung” is caused by *Micropolyspora faeni*
- % of Agar used for the preparation of solid media is- 1.5%
- Microbial population can be maintained in the exponential growth and at constant biomass for extended periods by using- Chemostat/Turbidostat
- The phenomenon by which bacteria monitor their own population density through sensing the level of signal molecules- Quorum assay
- Indicator bacterium used in autoclaving is- *Bacillus stearothermophilus* (spores)
- The commonly used agent for ‘cold sterilization is - Gamma radiation
- The disinfectant action of chlorine is due to the formation of- Hypochlorous acid
- Linear chromosomal DNA is found in- *Borrelia burgdoferi*
- The topoisomerase that removes the supercoiling during replication- DNA gyrase.
- The negative stain used in electron microscopy is – Phosphotungstic acid
- Bacterium that exhibits directed swimming in response to Earth’s magnetic field or to local magnetic fields- *Aquaspirillum*
- The structure that remain after the treatment of a gram –ve bacteria with lysozyme/penicillin is – Spheroplast
- An inorganic solidifying agent used for autotrophic bacteria- Silica gel

- The procedure for staining the capsular material of *B. anthracis* is- MacFadyean reaction.
- Botulism due to which type of toxin occurs in relation with phosphorous deficiency- Type D
- Vole's Bacillus is the synonym for - *Mycobacterium murinum*
- Specific media used for isolation of *M. bovis* is Stonebrink's medium containing Sodium pyruvate
- 'Stormy clot' reaction is characteristic of - *Clostridium welchi*
- The characteristic 'earthy odour' of the cultures is a feature of- *Psuedomonas psuedomallei*
- 'Flying sea gull' appearance is characteristic of- *Campylobacter*
- Vaginal mucus agglutination test in cattle is employed for the diagnosis of- *Campylobacter* infection.
- Rolling disease in mice is caused by- *Mycoplasma neurolyticum*.
- Eaton's agent is the synonym of - *Mycoplasma pneumoniae*
- Dick's test is used for the identification of- *Streptococcus pyogens*
- Chinese letter arrangement is seen for- *Corynebacterium*
- Friedlander's bacillus is the synonym for *Klebsiella pneumoniae*
- Weil-Felix reaction is used for diagnosis of Rickettsial infections using *Proteus vulgaris X strain*
- Swarming growth and fishy odour of colonies is characteristic of- *Proteus vulgaris*
- Kauffman-White scheme is used for serotypic differentiation of Salmonella
- VR (Venkatraman-Ramakrishnan) medium is used as a transport media for- *Vibrio cholerae*
- 'Epidemic typhus' (Brill-Zinsser disease) is caused by *Rickettsia prowazaki*
- 'Scrub typhus' is caused by *Rickettsia tsutsugamushi*
- Rickettsial disease that are not arthropod borne are Q-fever and Trench fever

Courtesy:

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