#### $Memory\ Test\ \hbox{-}\ Microbiology\ \hbox{-}\ I\_Class\ Test\_Foundation\_1$

Total Mark: 100 Time: 90 Min

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1. Bacterial component associatedwith production of septic shock are.  A) Bacterial capsular protein  B) Lipopolysaccharide  C) Peptidoglycan  D) Phospholipids  E) Teichoic Acid.  Answer: F, T, F, F, T  Discussion:  Reference: [Ref: Lange 14th P-06,09,45]	<ul> <li>2. Bacterial spore are</li> <li>A) Antibiotic sensitive</li> <li>B) Thermo stable</li> <li>C) Reproductive stage in bacterial multiplication</li> <li>D) Easily destroyed by gamma radiation</li> <li>E) Sensitive to antiseptics</li> <li>Answer: F, T, F, T, F</li> <li>Discussion:</li> <li>Reference: [Ref: Lange 14th P-12]</li> </ul>
3. Bacteriophage mediated toxins are:  A) Cholera toxin B) Tetanospasmin C) Botulinum toxin D) Erythrogenic toxin E) Exfoliative toxin Answer: T, F, T, T, F Discussion: Reference: [Ref: Lange 14th P-21]	4. BCG vaccine can be useful in A) Leprosy B) Tubercular meningitis C) Endocarditis D) Ca of urinary bladder E) Pharyngitis Answer: T, T, F, T, F Discussion: Reference:
5. Cause of white patch in the throat are A) Scarlet fever B) Rubella C) Apthousulcer D) Moniliasis E) Vincent angina Answer: T, T, T, T Discussion: Reference: [Ref: Lange 14th P-120-121]	6. Chemical agents that destroy spores are A) Phenol B) Alcohol C) Formaldehyde D) Ethylene oxide E) Para acetic acid Answer: F, F, T, T, T Discussion: Reference: [Ref: Lange 14th P-12]
7. Cl. perfringes are A) Anaerobic spore forming bacteria B) Produce endotoxin C) Produce gas gangrene in human D) Produce food poisoning in human. E) Normal flora of GIT Answer: T, F, T, T Discussion: Reference: [Ref: Lange 14th P-140]	8. Complications of Toxic shock syndrome A) Infertility B) Asthma C) Stroke D) Bartholin gland abscess E) MI Answer: T, F, F, T, F Discussion: Reference: [Ref: Lange 14th P-1114]
9. Following are applicable for N. gonorrhoea A) Kidney shaped B) Oxidase negative C) catalase positive D) Grown in acid fast stain E) Has many antigenic diversity Answer: T, F, T, F, T Discussion: Reference: [Ref: Lange 14th P-128]	10. Following are gram negative bacilli A) Pseudomonas aeruginosa. B) Treponema palladium C) Yersinia D) H. pylori E) V. cholera Answer: T, F, T, T, F Discussion: Reference: [Ref: Lange 14th P-25]

11. Following bacteria are pigment Producing  A) E. coli B) Pseudomonas C) Klebsella D) S. aureus E) Salmonella Answer: F, T, F, T, F Discussion: Reference: [Ref: Lange 14th P-111, 166]	12. Following bacteria produces exotoxin A) S. aureus B) N. meningitides C) S. viridians D) Cl. botulinum E) H. influenza Answer: T, F, F, T, F Discussion: Reference: [Ref: Lange 14th P-10/T-7.10]
13. Following bacteria used as probiotics A) Lactobacillus B) Pepto streptococcus C) Saccharomyces D) Bifido bacterium E) Fuso bacterium Answer: T, F, F, T, F Discussion: TFF (Fungus) TF Reference: [Ref: Lange 14th P-84]	14. Following diseases are caused by Chlamydia  A) Yellow fever B) Lymphogranuloma venereum C) Mumps D) Prostatitis E) Chanchroid Answer: F, T, F, T, F Discussion: Reference: [Ref: Lange 14th P-208]
<ul> <li>15. Listeria monocytogenes</li> <li>A) Cause meningoencephalitis</li> <li>B) Cause IUD</li> <li>C) Grown at 4□C temp.</li> <li>D) Does not grow on Macconkey'sagar media.</li> <li>E) Non motile at 25□C</li> <li>Answer: T, T, T, T, F</li> <li>Discussion:</li> <li>Reference: [Ref: Lange 14th P-144,145]</li> </ul>	16. Non sporing aerobic bacteria are A) Lactobacillus B) Actinomyces C) Nocardia D) Bacteroids E) Pnevotolla Answer: F, F, T, F, F Discussion: Reference: [Ref: Lange 14th P-25]
17. Plasmid A) In chromosomal DNA B) Contain Linear DNA C) Replicate independently of bacterial chromosome D) Can be integrated into bacterial chromosome. E) Present only in Gm(-) bacteria Answer: F, F, T, T, F Discussion: Reference: [Ref: Lange 14th P-10]	18. Skin is portal of entry of following micro organisms?  A) C. tetani B) Histoplasma C) Influenza D) Rabies virus E) Plasmodium virus Answer: T, F, F, T, T Discussion: Reference: [Ref: Lange 14th P-34]

19. Toxin mediated food poisoning caused by following organisms  A) E. coli  B) S. aureus  C) Salmonella  D) B. anthracis  E) C. perfringens  Answer: F, T, F, F, F  Discussion:  Reference:	20. Ulcerative lesions of the genitalia caused by  A) N. Gonorrhoea. B) H.ducreyi C) T.pallidum D) HIV E) Chlamydia Trachomatis serovars Answer: F, T, T, F, T Discussion: Reference: [Ref: Lange 14th P-624]
21. Which antimicrobial are both bactericidal & Bacteriostatic  A) Chloramphenicol  B) Amino glycosides  C) Tetracyclines  D) Streptogramins  E) Telithromycin  Answer: T, F, F, T, T  Discussion:  Reference: [Ref: Lange 14th P-76]	22. Which bacteria -need catalase enzyme to survive?  A) Pseudomonas B) Bacillus C) Actinomyces D) Bacteroids E) Nocardia Answer: T, T, F, F, T Discussion: Reference: [Ref: Lange 14th P-16]
23. Which Bacteria transmit through drinking water?  A) Pseudomonas B) Legionella. C) Salmonella D) Shigella E) C. jejuni Answer: F, F, T, T, T Discussion: Reference: [Ref: Lange 14th P-35]	24. Following organisms Produce IgA Protease:  A) S. aureus B) S. pyogenes C) N.gonorrhoea D) N. meningitidis E) H. influenza Answer: F, F, T, T, T Discussion: Reference:
25. In tuberculoid leprosy A) Lesions are asymmetrical: B) Lesions are numerous C) There is failure of helper Tcell activation D) There is early and marked nerve damage. E) Erythema nodusum can occur Answer: T, F, F, T, F Discussion: Reference: Ref: Davidson's 23rd /p-268	26. A 22-year-old man is admitted to hospital with a lower respiratory chest infection. He had a splenectomy after being involved in a car accident. What is the most likely infective organism?  A) Haemophilus influenzae B) Staphylococcus aureus C) Rhinovirus D) Mycobacterium tuberculosis E) Moraxella catarrhalis Answer: A Discussion: Organisms causing post splenectomy sepsis: Streptococcus pneumonia. Haemophilus influenza. Meningococci Reference:

- 27. A 25 year old woman has a papular rash on her trunk, arms and palms. She says the rash does not itch, vaginal examination reveals two flats, mount, slightly raised Lesson on the labia.

  Material from a labial lesion examined in a dark field microscoperevealed spirochetes which one of following is related to this condition?
- A) Primary syphilisB) Secondary syphilis
- C) Late syphilis
- D) Tertiary syphilis
- E) Chancroid Answer: B Discussion:

**Reference:** [Ref: Lange 14th P-696]

- 28. A 28 year old lady is breast feeding her first child. She presents with discomfort of the right breast. Clinical examination demonstrates erythema and an area that is fluctuant. Aspiration and culture of the fluid is most likely to demonstrate infection with which of the following organisms?
- A) Clostridium perfringens
- B) Staphylococcus aureus
- C) Streptococcus pyogenes
- D) Staphylococcus epidermidis
- E) Actinomycosis

Answer: B

**Discussion:** Staphylococcus aureus is the commonest cause. The infants mouth is usually the source as it damages the nipple areolar complex allowing entry of bacteria.

Reference:

- 29. A 30 year old male patient came to hospital with the complaint of painful micturition. In laboratory chocolate agar with carbon dioxide media need for growth of the causative organism. Which of the following is most susceptble organism for this cause
- A) N. meningitidis
- B) N. gonorrhoea
- C) E. coli
- D) Chlamydia
- E) Rickettsiac

Answer: B Discussion:

Reference: [Ref: Lange 14th P-123]

- 30. A 48 year old lady is admitted with crampy abdominal pain and diarrhoea. She has been unwell for the past 12 hours. Inthe history she complains that her milk bottles have been pecked repeatedly by birds, she otherwise has had no dietarychanges. Which of the following is the most likely causative organism?
- A) Staphylococcus aureus
- B) Campylobacter jejuni
- C) Clostridium difficile
- D) Norovirus
- E) Clostridium botulinum

Answer: B

Discussion: Birds are a recognised reservoir of

campylobacter.

Reference:

- 31. A 48 year old women presents with recurrent loin pain and fevers. Investigation reveals a staghorn calculus of the left kidney. Infection with which of the following organisms is most likely?
- A) Staphylococcus saprophyticus
- B) Proteus mirabilis
- C) Klebsiella
- D) E-Coli
- E) Staphylococcus epidermidis

Answer: B

**Discussion:** Infection with Proteus mirabilis accounts for 90% of all proteus infections. It has a urease producing enzyme. This will tend tofavor urinary alkalinisation which is a relative perrequisite for the formation of staghorn calculi.

Reference:

- 32. A 76 year old woman with a prosthetic (artificial) hip comes to you complaining of fever and pain in that joint. You are concerned about an infection by S. epidermidis. Concerning your knowledge of normal flora, what is the most likely source of this organism?
- A) Dental plaque
- B) Mouth
- C) Skin
- D) Stomach
- E) Vagina

Answer: D Discussion:

Reference: Ref: Lange 14th P-30]

- 33. A patient came to hospital with the complaints of descending weakness and paralysis, diplopia, dysphagia. He/she gave history of canned food indigestion few days back. Which one of following in most suspected organism?
- A) Cl. tetani
- B) Cl. botulinum
- C) S. pyogenes
- D) E.Coli
- E) Shigella

Answer: B Discussion:

Reference: [Ref: Lange 14th P-139]

- 34. A patient in the pediatric intensive care unit is a 2-week-old boy with a high fever and the signs of meningitis. Gram stain of the spinal fluid reveals small gram-positive rods. Colonies on blood agar Show a narrow zone of  $\square$ -hemolysin. Which one of the following is the most likely causes his neonatal meningitis?
- A) Bacillus anthracis
- B) Bacillus cereus
- C) Cl. perfringens
- D) Cl. diphtheriae
- E) L. monocytogenes

Answer: E Discussion:

**Reference:** [Ref: Lange 14th P-146]

- 35. An outbreak of postsurgical wound infection caused to by s. aureus has occurred in the hospital. The infection control team was asked to determine whether the organism could be earned by one of the operating room personnel. Now answer which one of the following body mentioning the most likely location for this organism?
- A) Colon
- B) Gingival crevice
- C) Mouth
- D) Nose
- E) Throat

Answer: D Discussion:

**Reference:** [Ref: Lange 14th P-30]

- 36. False for Mycoplasma Pneumonia?
- A) Membrane contains cholesterol
- B) Slow growing
- C) Vaccine available
- D) Score smallest free-Living organism
- E) Produce H2S

Answer: C Discussion:

Reference: [Ref: Lange 14th P-197]

- 37. Hand washing is an important means of interrupting the chain of transmission from one person to another. Infection by which one of the following bacteria is most likely to be interrupted by hand washing?
- A) Borrelia burgdoferi
- B) Legionella preumophila
- C) S. aureus
- D) S. agalactiae
- E) T. Pallidum

Answer: C Discussion:

Reference: [Ref: Lange 14th P-50]

- 38. In which one of the phases are antibiotics such as penicillin most likely to kill bacteria?
- A) Phase A
- B) Phase B
- C) Phase C
- D) Phase D
- E) Convalescence phase

Answer: B Discussion:

**Reference:** [Ref: Lange 14th P-17]

39. Infection by which one of the following bacteria are typically treated with penicillins such as amoxicillin because they exhibit neither low level resistance nor high level resistance and synergy with an aminoglycoside is not required in order for penicillin's to be effective?

- A) Enterococcusfaecalis
- B) S. aureus
- C) S. epidermidis
- D) S. pneumonia
- E) S. pyogenes Answer: E
  Discussion:

**Reference:** [Ref: Lange 14th P-126]

# 40. Infection by which one of the following bacteria is most likely to be transmitted vertically?

- A) Chlamydia trachomatis
- B) Clostridium tetani
- C) Haemophilus influenza
- D) Shigella
- E) S. pneumoniae

Answer: A Discussion:

**Reference:** [Ref: Lange 14th P-50]

### 41. Red or brown rusty color sputum production is seen in following bacterial infection

- A) S. aurous
- B) Klebsiella
- C) S. pneumonia
- D) Pseudomonas
- E) E. coli
  Answer: C
  Discussion:

Reference: [Ref: Lange 14th P-124]

- 42. The main purpose of performing a throat culture is to detect the presence of which one of the following bacteria?
- A) N.meningitidis
- B) S.aureus
- C) S. epidermidis
- D) S. pneumoniae
- E) S. pyogenes

Answer: E Discussion:

**Reference:** [Ref: Lange 14th P-67]

## 43. Which bacteria is strongly urease positive and oncogenic?

- A) H. pylori
- B) C. jejuni
- c) EBV
- D) S. aureus
- E) Legionella

Answer: A Discussion:

**Reference:** [Ref: Lange 14th P-162]

- 44. Which mycobacterium cause swimming pool granuloma?
- A) M. ovium
- B) M. kansari
- C) \( \Bar{\text{L}}\) marinum
- D) M. bovis
- E) 0. 000rul

Answer: C Discussion:

**Reference:** [Ref: Lange 14th P-184]

#### 45. Which one is not Zoonotic disease?

- A) Brucellosis
- B) Bubonic plague
- C) Anthrax
- D) Measles
- E) Leptospirosis

Answer: D Discussion:

Reference: Ref: Lange 14th P-36]

- 46. Which one of the following best describes the mode of action of endotoxins?
- A) Degrades lecithin in cell membranes
- B) Inactivates elongation factor-L
- C) Block release of Acetylcholine
- D) Cause release of TNF
- E) Binds with IL-1

Answer: D Discussion:

**Reference:** [Ref: Lange 14th P-710]

- 47. Which structure of bacteria is absent in gram
- (-) bacteria but in gram (+) bacteria
- A) Teichoic acid
- B) Capsule
- C) Pili
- D) Periplasmic space
- E) Cytoplasmic membrane

Answer: A Discussion:

Reference: [Ref: Lange 14th P-7]

- 48. A 54-year-old female is admitted one week following a cholecystectomy with profuse diarrhoea. Apart from a minor intra-operative bile spillage incurred during removal of the gallbladder, the procedure was uncomplicated. What is the most likely diagnosis?
- A) Campylobacter infection
- B) E. coli infection
- C) Clostridium difficile infection
- D) Salmonella infection
- E) Pelvic abscess

Answer: C

**Discussion:** Antibiotics are not routinely administered during an uncomplicated cholecystectomy. Indications for administration of broadspectrum antibiotics include intraoperative bile spillage. Delayed pelvic abscesses following bile spills are extremely rare sincemost surgeons will manage these intra-operatively.

Reference:

- 49. A 7-year-old girl has bloody diarrhea and fever (Temp. 38□c) but no nausea vomiting only fermenting colonies are seen on EMB agar. Which one of following organism should be excluded?
- A) E. coli
- B) Mycoplasma pneumonia
- C) N. meningitidis
- D) S.aureus
- E) S. agalactiae

Answer: A Discussion:

Reference: [Ref: Lange 14th P-694/Case-19]

- 50. MRSA can be treated following drugs except
- A) Penicillins
- B) Vacomycin
- C) Daptomycin
- D) Trimethoprim
- E) Ceftaroline

Answer: A Discussion:

**Reference:** [Ref: Lange 14th P-115]