Questions on microbiology for students of dentistry:

1. For the relationship between the microorganism and the host is characteristic:
   a) neither the infection, nor the colonisation trigger immune response
   b) the immune response is triggered by the infection
   c) there must be a damage to the host tissue during the infection
   d) infection is always accompanied by clinical manifestations of the disease

2. Pathogenicity is the ability of the microbe:
   a) to cause infection in the susceptible host
   b) to modify the composition of the normal flora
   c) to cause disease in the immune host
   d) to spread actively from the host to host

3. The source of infection can be:
   a) ill or carrier person, or animals
   b) ill person, and insects as a passive carriers
   c) dust particles
   d) contaminated objects

4. To the way of transmission belong:
   a) ill animals
   b) carriers
   c) infectious aerosol, insect vectors, sexual intercourse, and contaminated water, soil and objects
   d) arising of genetic mutation and its transplacental transmission

5. The interhuman contact is necessary for transmission of:
   a) spotted typhus
   b) chlamydial urethritis, syphilis and gonorrhoea
   c) Q- fever and listeriosis
   d) psittacosis and legionellosis

6. Commensalic microorganisms on the mucosa:
   a) support the resistance to the pathogens by competing for adhesion to the epithelial cells and by production of bacteriocins and certain metabolic products
   b) they inhibit the plasmid transfer among pathogens
   c) consume oxygen and nutritions necessary for pathogens
   d) decrease the resistance of pathogens to antibiotics and factors of immunity

7. During sterilisation
   a) all bacteria except the nonpathogenic must be inactivated
   b) all microorganisms including their spores must be inactivated
c) sterilisation is obtained by boiling for at least 180 minutes  

8. For sterilisation can be used:  
   a) benzin alcohol in combination with chlorhexidine  
   b) streaming steam  
   c) steam under pressure, incineration in the flame, or ethylene oxide  
   d) 3% hydrogen peroxide  

9. To the disinfectant agents belong:  
   a) amphotericin B  
   b) sodium hypochlorite, iodine preparations  
   c) neomycin  
   d) acyklovir  

10. Diseases transmissible from human to human are:  
    a) zoonoses  
    b) sapronoses  
    c) antroponoses  
    d) dysbioses  

11. The cell wall of bacteria:  
    a) determinate the staining properties according to Gram and contains antigens, which can be used in the diagnostics  
    b) is the surface component of all bacteria  
    c) contains peptidoglycan always resistant to lysozyme  
    d) in G+ bacteria contains lipopolysaccharide  

12. Wet-mount preparation is used for:  
    a) streptococcal angina diagnostics  
    b) gonorrhea diagnostics  
    c) capsule detection  
    d) motility detection and observation of spirochaetes (in dark-field)  

13. Gram staining is performed as follows:  
   (F = fixation, CV = crystalic violet, W = water, A = acetone, L = iodin (Lugol) solution, C = carbolfuchsin)  
   a) F-CW-A-W-C-W  
   b) CW-W-L-A-C-W  
   c) F-L-CW-A-W-C-W  
   d) F-CW-L-A-W-C-W  

14. The aim of cultivation during microbiological diagnostics is:  
   a) to evaluate the pathogenity of microorganisms  
   b) to detect resistance genes  
   c) to detect the antigenic structure of microorganisms
d) to isolate the microorganisms from biological sample, obtain pure culture for further examination, and detect growth properties of the microorganisms

15. To the strictly anaerobic bacteria belong:
a) Prevotella melaninogenica, Bacteroides fragilis, Clostridium tetani and Escherichia coli
b) Prevotella melaninogenica, Bacteroides fragilis, Clostridium tetani
c) Neisseria gonorrhoeae and Treponema pallidum
d) Mycobacterium tuberculosis

16. Bacteria are identified on the basis of:
a) shape, staining properties according to Gram, growth properties, biochemical properties
b) plasmids presence
c) exotoxins production
d) source of infection, way of transmission and locality of entry

17. Extended cultivation time interval is necessary for detection of:
a) Salmonella Typhi
b) Mycobacterium tuberculosis and mycobacterioses causing agents
c) Mycobacterium leprae
d) Streptococcus pyogenes, Staphylococcus aureus and Haemophilus influenzae

18. Virulence of microorganism:
a) is the specific degree of pathogenity of the particular strain
b) is a species-specific property
c) is the ability of microbial species to cause disease
d) in the particular strain is stable and cannot be changed

19. LPS – endotoxin:
a) its lipidic part is responsible for toxic effect
b) its proteinic part is responsible for antigenic properties
c) is compound of the microcapsule
d) is liberated from grampositive bacteria after their destruction

20. Streptococci:
a) all streptococci can be typed according to Lancefield
b) to the β-haemolytical streptococci belong S. pyogenes, S. pneumoniae and S. salivarius
c) viridans streptococci play role in tooth caries development and endocarditis connected to artificial or damaged hart valve
d) are transmitted by vectors

21. Poststreptococcal diseases:
a) rheumatic fever can develop after pharyngeal infection caused by *S. agalactiae*
b) is caused by autoimmune reaction induced by antigens of *S. pyogenes*
c) occur only after clinically manifested infections with scarlet fever exanthema
d) are diagnosed by ASO testing in urine of patient

22. *Streptococcus pneumoniae*:
   a) except to pneumonias causes otitis and meningitis in children
   b) the most important virulence factor is teichoic
   c) produces neurotoxic protein
   d) antibodies against capsular antigens are not protective

23. *Staphylococcus aureus*:
   a) produce plasmacoagulase
   b) serotyping is used for identification
   c) does not produce haemolysins
   d) does not multiplies in anaerobic conditions

24. *Corynebacterium diphtheriae*:
   a) active immunisation is based on stimulation of antibacterial immunity
   b) active immunisation is based on stimulation of antitoxic immunity
   c) toxin acts only at the place of inflammation
   d) isolation of microorganism from the sample always confirms the diagnosis of diphtheria

25. MRSA strains of *S. aureus* are susceptible to:
   a) oxacillin
   b) amoxycillin-clavulanate
   c) cefotaxime
   d) ceftobiprol

26. For the therapy of infections caused by MRSA strains of *S. aureus* can be used:
   a) linezolid
   b) cefoperazon
   c) cefalotin
   d) meropenem

27. To the penicillin is always susceptible:
   a) *S. pyogenes*
   b) *S. pneumoniae*
   c) *S. agalactiae*
   d) *S. aureus*

28. *Haemophilus influenzae* can cause:
   a) influenza
   b) meningitis
   d) urethritis
   d) rheumatic fever
29. Neisseria gonorrhoeae:
   a) is routinely transmitted by contaminated objects
   b) microscopic examination has diagnostic value
   c) surmounted disease provides long-lasting reliable
   d) penicillin can be always used for therapy

30. Neisseria meningitidis:
   a) factor of virulence is a polysaccharidic capsule
   b) there is a safe and effective vaccine against B-serotype
   c) mononuclears prevail in the cerebrospinal fluid during meningitis
   d) meningitis has aseptic character

31. Shigella:
   a) causes disease characterised by blood in the stool
   b) blood for haemoculture can be collected for the diagnostic of the disease
   c) the disease is routinely diagnosed by antibody detection in the stool
   d) amoxycillin-clavulanate is used for the therapy

32. To the obligatory pathogenic enterobacteria belong:
   a) Citrobacter sp.
   b) Enterobacter sp.
   c) Salmonella sp.
   d) Klebsiella sp.

33. People over 65 years of age should be advised to get vaccination against:
   a) Pneumococci
   b) Haemophilii
   c) Tuberculosis
   d) Hepatitis B

34. Pseudomonas aeruginosa often causes:
   a) nosocomial infections
   b) Acute inflammation of the upper respiratory tract
   c) Impetigo
   d) folliculitis

35. Legionella:
   a) The disease is characterized by coughing out sputum
   b) Bacteria lives in the humid environment, and in air-conditioning devices
   c) It can be easily and completely eliminated in the hospital water conduction pipes
   d) It grows in most common culture media

36. Helicobacter:
   a) Take part in the formation of gastroduodenal ulcer
   b) Does not cause malignant transformation
   c) It’s not immunogenic
d) It grows on Endo agar

37. Anaerobic Gram-negative rods:
   a) To them belong Bacteroides sp., Fusobacterium sp., Mobiluncus sp.
   b) They cause exogenous infections
   c) In the therapy we can use metronidazole, clindamycin and chloramphenicol
   d) In the diagnosis we can use serological reactions

38. Coagulase-negative staphylococci:
   a) They grow in the form of biofilm
   b) They can cause diarrhea in children
   c) They are mostly sensitive to oxacillin
   d) They are resistant to vancomycin

39. Coagulase-negative staphylococci:
   a) Their main virulence factor is exotoxins
   b) They are able to adhere on plastic materials
   c) They are usually susceptible to erythromycin
   d) They are mostly resistant to rifampicin

40. In the diagnosis of syphilis we can use:
   a) Gram’s staining
   b) Wet mount
   c) Cultivation on culture media
   d) Biochemical tests

41. Oral streptococci:
   a) To this group belongs, S. mutans, S. sanguis, S. salivarius
   b) They represent the normal physiological flora mainly in the nasal mucosa
   c) Their cultivation on media is not successful
   d) They cause Rheumatic fever

42. Oral streptococci:
   a) They can cause bacterial endocarditis
   b) In the diagnosis of the disease we can use the detection of ASO titer
   c) In therapy we can use penicillin
   d) They are able to cause disease even in immunocompetent individuals

43. Trichomonas vaginalis:
   a) infection is routinely transmitted by contaminated water
   b) belongs to parasitical warms
   c) laboratory diagnostics is based on microscopy and culture
   d) diagnosis of trichomonosis is confirmed by serological examination

44. Malaria is most frequently transmitted by:
   a) mosquito Culex pipiens
   b) Pediculus corporis
   c) Anopheles sp.
d) Glossina palpalis (tse-tse fly)

45. Toxoplasma gondii:
   a) the disease is confirmed by microscopic examination of blood
   b) belongs to flagellata
   c) the disease is confirmed by serological diagnostics
   d) the parasite multiplies only in humans

46. Viruses differ from the other microorganisms by:
   a) strict biotropism, multiplication by the synthesis de novo and the presence of only one type of nucleic acid
   b) exclusively anaerobic metabolism
   c) susceptibility to only some of the broad-spectrum antibiotics
   d) multiplication only in some of the synthetic media

47. Cytomegalovirus (CMV)
   a) belongs to the herpetic viruses causing sexually transmitted disease of genital mucosa
   b) has no teratogenic effect on the foetus
   c) the acute infection does not proceed to the latency
   d) belongs to the herpetic lymphotropic viruses transmissible parenterally, sexually, transplacentally and perinatally, causing severe infections only in immunocompromised people

48. Epstein-Barr virus:
   a) is primarily neurotropic herpetic virus
   b) does not stimulate specific antibody response; the diagnostics is based predominantly on direct detection of virus
   c) is lymphotropic herpetic virus with oncogenic potential, transmissible by saliva, parenterally, sexually and transplacentally; causes infectious mononucleosis
   d) can cause lymphoma without respect to the immune status of the host

49. Varicella - zoster virus:
   a) is highly infectious herpetic virus, causing chicken pox only in children
   b) shingles (herpes zoster) is manifestation of reinfection by varicella virus
   c) after infection the virus latently persists in adenoid tissue
   d) is a neurotropic herpetic virus, transmissible by airborne droplets or contact, causing acute generalised exanthematic disease, and shingles after reactivation

50. Papillomaviruses:
   a) cause exclusively benign proliferative infections of the skin and mucosa
   b) belong to the enveloped DNA viruses; are not well refractory to the external factors; are transmitted by close contact, and cause generalised disease with skin and mucosal manifestation
   c) are transmitted by direct, as well as indirect contact, and some types have oncogenic potential
   d) the presence of papillomaviruses in cervical lesions is predominantly detected by virus isolation in the cell-culture
51. Influenzavirus
a) belongs to paramyxoviruses and surmounting the infection provides a life-long immunity
b) is regularly animals-to-humans transmitted in the endemic areas
c) it is necessary to isolate annually the epidemiologically topical viruses in order to detect the possible antigenic shift or drift, and to obtain viruses for vaccine preparation for the next season
d) is not inhibited by any of the known antiviriotics

52. HBV:
a) is transmitted by fecal-oral route, does not causes chronic hepatitis with possible cirrhosis and hepatocellular carcinoma; the vaccine against it is not included in the regular vaccination scheme
b) is transmitted parenterally (by blood and blood-derivates), causes chronic hepatitis with possible cirrhosis and hepatocellular carcinoma; all children in developed countries are regularly vaccinated against it
c) is transmitted parenterally (by blood and blood-derivates), causes chronic hepatitis with possible cirrhosis and hepatocellular carcinoma, but there is no vaccine against it
d) is transmitted by fecal-oral route, does not causes chronic hepatitis with possible cirrhosis and hepatocellular carcinoma, and there is no vaccine against it

53. Diagnostics of hepatitis-C is based on:
a) specific IgM antibodies detection in stool
b) HBsAg (marker of infectiousity), HBeAg and anti–HBs, -HBe and -HBc detection
c) virus isolation in the cell-culture
d) specific antibody detection by ELISA and immunoblot, and detection of viral nucleic acid in the blood of patient

54. Parotitisvirus:
a) is gonadotropic virus, transmissible by airborne droplets, which can cause aseptic meningitis as well, and foetal infection during gravidity
b) is transmitted by saliva and causes purulent parotitis
c) it spreads in epidemics in Slovakia also at the present
d) it spreads by contact and causes benign childhood disease

55. HIV:
a) is transmitted by blood, sexually, and transplacentally; infect macrophages and Th-lymphocytes
b) there is a life-long immunity after vaccination, or surmounting an infection
c) antiviral therapy during the gravidity has no effect on the risk of the virus transmission to the foetus
d) the laboratory diagnostics is based on the significant (4x) increase of the specific antibody titre, or the specific IgM antibody detection

56. To the viruses causing respiratory tract infections belong:
a) coronaviruses, rhinoviruses, parainfluenza and influenza viruses, RSV, and adenoviruses  
b) adenoviruses, rotaviruses, astroviruses, noroviruses  
c) retroviruses, papillomaviruses, poliomaviruses and poxviruses  
d) rhabdoviruses, polioviruses, HIV

57. In the therapy of mycoses are used:  
a) therapy by fluconazole, amphotericine-B, terbinafine, caspofungine; the surgical therapy could be indicated  
b) therapy by miconazole, nystatine, 5-fluorocytosine; the surgical therapy is never important  
c) therapy by itraconazole, bifonazole, griseofulvine; elimination of the predisposing factors has no influence on the further relapses  
d) therapy by streptomycine, metronidazole, neomycine and nitrofurantoin; regeneration of the normal flora is not necessary

58. Fungi are characterised by the following properties:  
a) they do not have any cell-wall  
b) are susceptible to most of the antibiotics  
c) in the cell-wall have chitine, in the cytoplasmic membrane ergosterol, can form hyphae and yeast-forms  
d) in the cell-wall have cellulose, in the cytoplasmic membrane cholesterol, and cannot be cultivated in vitro

59. Indirect diagnostics can be performed to prove:  
a) Gonorrhea  
b) Syphilis  
c) Ulcus molle  
d) Trichomoniasis

60. Significant bacteriuria in the mid-flow urine is:  
a) $10^2$  
b) $10^3$  
c) $10^4$  
d) $10^5$

61. Streptococcus pyogenes can cause:  
a) Dental caries  
b) Recurrent tonsillitis  
c) Endocarditis lenta  
d) Most cases of lower urinary tract infections

62. Rheumatic fever (RF) and glomerulonephritis (GN):  
a) RF is due to the infection by Streptococcus pyogenes (group A)  
b) In the empiric therapy we use penicillin but only in high doses  
c) The illness most frequently affects children below 3 years of age  
d) Appears regularly in asymptomatic carriers of streptococci

63. Otitis media in children:  
a) It is most frequent in summer months
b) Otitis media is more frequent in adults than in children
c) The etiological agents in children are often S.pneumoniae, H. influenzae and M. catarrhalis
d) In the treatment we prefer antibiotics with bateriostatic effect

64. Laryngitis and tracheitis
a) The causative agents of acute inflammation are predominantly viruses
b) The main causative agent of flu epidemics and pandemics is influenza type B
c) Rhinoviruses and poxviruses belong among the possible etiological agents
d) The main causative agents are S.aureus and S.agalactiae

65. Pneumoniae:
a) Mycoplasma pneumoniae can cause lobar pneumonia
b) The main factor of virulence for S. pneumoniae is the protein capsule
c) Following an episode of flu, the patient can develop secondary bacterial pneumonia
d) For the therapy of infections caused by M.pneumoniae we can choose cephalosporins or penicillins

66. Angina:
a) The disease affects exclusively palatine tonsils
b) Rapid onset is typical for streptococcal (group A) infections
c) The clinical manifestations are present exclusively following bacterial infections
d) If it is caused S. pyogenes we do not administrate antibiotics

67. Tuberculosis:
a) For the confirmation of the disease we can use microscopic proof of the causative agent
b) We can isolate the causative agent from sputum by cultivation on blood agar
c) Definitive negative culture results are confirmed after 1 to 3 weeks
d) Lincomycin can be applied for infections involving the bones

68. Primary herpetic infection:
a) Can be manifested like herpes labialis recidivans
b) Can be manifested like gingivostomatitis
c) Can be manifested like keratitis recidivans
d) The combination of neomycin and bacitracin is an effective therapy

69. Physiological flora of gastrointestinal tract:
a) in proximal part of the small intestine predominate anaerobic bacteria
b) in distal ileum and colon predominate anaerobic bacteria
c) Enterobacteriaceae create the main part of bacterial flora in the large intestine
d) Bacteriodes sp. a E. coli belong to the normal flora of colon in child at a breast
70. Diarrhoea and vomiting arose suddenly 5 hours after the meal:  
a) causing agent can be Staphylococcus aureus  
b) bacillary dysentery could be taken in account  
c) the causing agent can be Salmonella Typhi  
d) it is most probably campylobacteriosis

71. Post-antibiotic enterocolitis can be caused by:  
a) Staphylococcus epidermidis  
b) Bifidobacterium bifidum  
c) Clostridium difficile  
d) Fusobacterium sp.

72. Hepatitis caused by HBV:  
a) incubation period is 2-7 days  
b) can be transmitted also by sexual intercourse  
c) antibodies against HBsAg prove the infectiosity of patient  
d) there is a cross-immunity with hepatitis A (HAV)

73. Hepatitis caused by HAV:  
a) the basic mode of transmission is blood transfusion  
b) all persons in risk of infection are preventively immunised  
c) the surmounting disease provides a life-long immunity (cannot recur)  
d) there is a cross-immunity with HBV

74. Hepatitis D agent (HDV):  
a) is a satellite virus (can replicate only in cell infected by other virus)  
b) causes superinfection in persons with hepatitis A  
c) the way of transmission is identical with HAV  
d) interferes (= inhibits the hepatocyte infection) with HBV

75. HBsAg:  
a) is localised inside the Dane particle  
b) takes part in the pathogenesis of disease in the form of immunocomplexes  
c) is a core antigen of HBV  
d) its presence in the serum is a marker of virus replication

76. During the acute urinary tract infection is most frequently expected:  
a) Streptococcus pyogenes  
b) Escherichia coli  
c) Candida albicans  
d) Pseudomonas fluorescens

77. Sexually transmitted diseases:  
a) Neisseria gonorrhoeae never invades through mucosa (into the bloodstream)  
b) lues – the disease is infectious only in the 1st stage  
c) ulcus molle (chancroid) is clinically not distinguishable from ulcus durum (chancre)  
d) Herpes simplex 2 belongs to the causing agents
78. Painless ulcer with induration on the genitals:
a) the causing agent is detected microscopically (in the dark-field)
b) locally are applied antibiotics and disinfectious agents
c) if the ulcer heals by 10 days, the antibiotic therapy is not necessary
d) the causing agent is Herpes simplex virus

79. Rubella virus:
a) the damaged newborn has signs of the Hutchinsons trias
b) if rubella is suspected in the 1st trimester, the pregnant women is preventively vaccinated
c) congenital rubella is confirmed by specific IgM detection in umbilical cord blood
d) acute rubella in pregnant women confirm specific IgG presence in her serum

80. Surgical wound infection:
a) frequent reason is failure of antisespsis measures during the surgical intervention
b) staphylococci are the predominant causing agents of postoperative flegmons
c) production of abscesses is typical for staphylococcal infection
d) during the surgical intervention are always provided preventively systemic antibiotics

81. Wound infections:
a) as infected are considered only visibly contaminated wounds
b) wounds are infected exclusively by exogenous flora
c) devitalisation of tissue is one of the conditions for development of anaerobic infection
d) vaccine against rabies is applied after every animal bite

82. Decubitus (bed sore):
a) is a consequence of pressure ischaemia and necrosis of skin and subcutaneous tissue
b) the basic therapy is systemic application of broad-spectrum antibiotics
c) is preferentially infected by fungi
d) broad-spectrum antibiotics are applied as prevention

83. Symetrical, sharply-demarcated erythema and oedema on the face or lower extremities:
a) is typical for Erysipelothrix rhusiopathiae infection
b) the causing agent is Streptococcus pyogenes
c) the causing agent is Streptococcus agalactiae
d) the causing agent is most frequently Staphylococcus aureus

84. Botulisms:
a) botulotoxin is antigenically unique
b) toxin causes pareses of smooth and skeletal muscles
c) the disease can be established exclusively after food-borne intoxication
d) broad-spectrum antibiotics are applied as soon as possible in food-borne intoxication

85. Bacterial sepsis:
   a) subacute disease is frequently connected to focal inflammation in organism
   b) continual fever without chills is typical for staphylococcal infection
   c) undulation of fever is caused by toxin liberation from bacteria
   d) this is the term for every presence of bacteria in blood

86. Sample collection during sepsis for microbiological examination:
   a) blood is sampled at the peak of the fever curve
   b) administered antibiotics should be specified in the request form
   c) collection of smaller blood volume does not decrease the chance for causing agent isolation
   d) in severe clinical state is enough to collect only one blood sample

87. Intrauterine foetal infections are caused especially by:
   a) HAV
   b) Cytomegalovirus
   c) Neisseria meningitidis
   d) Neisseria gonorrhoeae

88. Purulent meningites:
   a) causing agents are especially viruses and protozoas
   b) disease caused by Neisseria meningitidis can have epidemic incidence
   c) bacterial septic state regularly causes infection of meningi
   d) meningitis is caused by non-encapsulated Streptococcus pneumoniae strains as well

89. Brain abscess:
   a) high doses of nitrofurantoin are applied in the initial therapy
   b) into the CNS especially well penetrates ceftriaxone
   c) isolation of virus could be attempted during the diagnostics
   d) negative haemoculture result excludes the presence of the abscess

90. Infection caused by prions:
   a) incubation period of disease can lasts years
   b) the causing agent stimulates production of IgM antibodies
   c) the causing agent is transmitted by airborne droplets
   d) examples are rabies and herpes zoster

91. The factors that affect the process of adhesion from the bacterial side include:
   a) Extracellular polymers
   b) Lysozymes
   c) Sialic acid
   d) Lactoferrin

92. In the gingival sulcus we can find in prevalence:
a) sIgA
b) IgG
c) IgE
d) Macrophages

93. In saliva we can find in prevalence:
a) IgA
b) sIgA
c) Standard IgE
d) Standard IgM

94. In the formation of plaques, pellicle forms
a) After 2-3 minutes
b) After 2-3 seconds
c) Following 1 day
d) In the case of good oral hygiene it does not form at all

95. The bacterial specie that predominantly adheres and forms a biofilm on the surface of the salivary pellicle is:
a) S. pneumoniae
b) S. agalactiae
c) S. mutans
d) S. epidermidis

96. Bacteria form the group HACEK in the oral cavity participate mainly in:
a) Cystitis
b) Endocarditis
c) Pneumonia
d) Pyelonephritis

97. Cervicofacial Actinomycosis:
a) Develops mainly in the upper jaw
b) Develops mainly in the lower jaw
c) Aminoglycosides are used in the therapy
d) The causative agent can be cultivated on blood agar within 24hrs

98. The possibilities for evaluating the risk of the development of dental caries by using microbiological methods include:
a) Cultivation of scrapings from the surface of the plaque on blood agar
b) Examination of samples of the saliva for the presence of S. mutans a Lactobacillus species using specialized media
c) Examination of the saliva for the presence of Actinomyces on blood agar
d) This risk can not be evaluated by using microbiological methods

99. Tooth plaque:
a) Is formed only supragingivally
b) Is mature already following three days
c) The presence of glucose in diet slows the process of its maturation
d) Enamel demineralization starts at pH around 5.5
100. In indicated cases, the dentist can use the following antimicrobial therapeutics in his ambulance:
   a) Aminoglycosides
   b) Vancomycin
   c) Macrolides
   d) IV. Generation cephalosporins

101. Biofilm can form on dental prosthesis mostly by the following specie (which in the same time can cause stomatitis):
   a) S. epidermidis
   b) C. albicans
   c) P. aeruginosa
   d) E. coli

102. In the case of gingivitis we can predominantly find in the plaque:
   a) Candida
   b) E. coli
   c) Actinomyces sp.
   d) S. saprophyticus

103. The following bacteria are a part of the normal physiological flora and its quantity rises in carious lesions:
   a) Neisseria sicca
   b) Veillonella
   c) Lactobacillus
   d) S. viridans

104. In periodontal illnesses it is possible to isolate the following specie in predominance from a given locality and to plot it by Gram’s stain:
   a) Treponema denticola
   b) Capnocytophaga species
   c) Neisseria subflava
   d) S. viridans

105. Actinobacillus actinomycetemcommittans participates in:
   a) Parotitis
   b) Juvenile periodontitis
   c) Nasopharyngitis
   d) Chronic tonsillitis

106. The first specie that takes place in the process of colonization of the oral cavity following birth is:
   a) Lactobacillus specie
   b) Streptococci, mainly S. salivarius
   c) Actinomyces specie
   d) Prevotella sp., Fusobacterium sp.

107. Following teeth eruption, the following bacteria starts to colonize the oral cavity:
a) S. pneumoniae and H. influenzae
b) Viridans group of streptococci, Veilonella sp., oral neisseria and coagulase - negative staphylococci
c) E. coli and Bacteroides fragilis
d) Candida albicans and Treponema denticola

108. Among the aerobic bacteria that colonize the oral cavity belongs:
a) Candida sp.
b) Clostridium perfringens
c) Viridans group of streptococci, and oral neisseria
d) Actinomyces sp. and Prevotella melaninogenica

109. Among the anaerobic bacteria that colonize the oral cavity belongs:
a) S. salivarius
b) Prevotella sp., Porphyromonas sp., Fusobacterium sp.
c) Bacteria that belongs to the HACEK group
d) Corynebacterium sp. and coagulase-negative staphylococci

110. Dental calculus or tartar:
a) Its presence does not have any effect on the formation and the development of gingivitis
b) It does not form subgingivally
c) Its porous and enables the absorption of the harmful components of dental plaque
d) It should not be removed in individuals with artificial valve

111. The following does not have any effect on the components of the oral microflora:
a) Dietary habits
b) The shape of teeth
c) The amount and the composition of saliva
d) dental prosthesis

112. The formation of dental plaque is inhibited by:
a) The presence of glucose in diet
b) Xerostomia
c) Chlorohexidine and fluoride
d) Cola lemonades

113. Tooth caries can be destroyed by:
a) The products of bacteria in the oral cavity
b) Mechanical cleaning and lauryl sulfate
c) Macrophages
d) Lysozymes in the saliva

114. The following microorganisms prevail mostly in the subgingival plaque:
a) Neisseria sp., E. coli, viridans group of streptococci, hemophilus sp.
b) Actinomycyes sp., Prevotella sp., Porphyromonas sp.
c) Bacteria that belongs to the HACEK group
d) C. tropicalis

115. The first lesion on the surface of the enamel that is formed as a result of bacterial effect in the dental plaque is seen as:
   a) Grey spot
   b) Black spot
   c) White spot
   d) Destruction of the enamel

116. The formation of dental caries through one's life is affected by:
   a) The genetically given structure of the enamel and the presence of C. albicans in the oral cavity
   b) The thickness of the dentine
   c) The genetically given structure of the enamel and the composition of the oral microflora
   d) IgG in saliva

117. The most important bacterial factor in the formation of tooth caries is:
   a) The formation of hemolysins
   b) The formation of lactic acid
   c) The formation of lipopolysaccharides
   d) The formation of capsule

118. In the prevention of dental caries, we can use:
   a) Administration of immunoglobulins i.v.
   b) Preventive administration of antibiotics
   c) Appropriate dietary habits and using proper technique in teeth cleaning
   d) Increased content of lactic acid in diet

119. The following bacteria participate in the formation of chronic marginal gingivitis:
   a) Oral neisseria
   b) Actinomyces sp. and viridans group of streptococci
   c) Treponoma denticola
   d) Fusiform bacteria

120. The following immune response participates in chronic marginal gingivitis
   a) Immune complexes
   b) NK - cells
   c) Nonspecific inflammatory reaction against the bacteria that is present in the dental plaque
   d) sIgA

121. The carrier state of the pathogenic and potentially pathogenic microorganisms in the oral cavity and on tonsils involves the following species:
   a) S. epidermidis, Mucor sp.
   b) S. pyogenes, S. pneumoniae
   c) S. salivarius, Neisseria sicca
d) C. pseudodiphtheriticum and Prevotella sp.

122. The carrier state of the pathogenic bacteria in the oropharyngeal area, which can lead to illnesses of the CNS, involves the following bacteria:
  a) S. viridans
  b) S. aureus
  c) N. meningitidis
  d) Actinomyces sp.

123. The following microorganisms can participate in the formation of acute ulcerative gingivitis:
  a) S. mutans and S. sanguis
  b) Yeast
  c) Spirochetes a fusobacteria
  d) Staphylococci and streptococci

124. The following microorganisms can participate in the formation of juvenile periodontitis:
  a) Candida sp.
  b) HSV-1
  c) S. mutans and S. sanguis
  d) A. actinomycetemcomitans and P. intermedia

125. Among the factors from the patient’s side which can participate in the formation of periodontal illnesses belongs:
  a) Antibody production against periodontal pathogens
  b) Lysozymes
  c) The formation of immunocomplexes and cytokines with osteoclastic activity
  d) sIgA

126. Among the bacterial virulence factors, which can participate in the formation and development of periodontal illnesses belongs:
  a) Flagellae
  b) Sialic acid
  c) Endotoxin, adhesins and degradation enzymes (collagenase)
  d) Bacterial hemolysin

127. The possibilities of treatment in periodontal illnesses include:
  a) Ultrasound
  b) In indicated cases also the peroral application of antibiotic therapy
  c) Fluoridation
  d) the application of mupirocin locally

128. Pulpititis:
  a) Forms as a result of the accumulation of dental calculus
  b) Forms due to dental caries following the invasion mainly by lactobacilli and streptococci and the resulting inflammatory reaction in the tooth pulp
c) Forms due to dental caries following the invasion mainly by S. agalactiae and S. aureus and the resulting inflammatory reaction in the tooth pulp

129. The following participates in the pulp necrosis:
   a) Exclusively anaerobic bacteria
   b) A mixture of aerobic and anaerobic bacteria from the oral cavity
   c) Predominantly necrotizing clostridia
   d) Exclusively aerobic bacteria

130. The specimen that should be collected for microbiological examination of a dentoalveolar abscess is:
   a) Lavage obtained from the lesion
   b) Lavage obtained from the oral cavity
   c) An aspirate collected into an anaerobic transport system
   d) A swab from the lesion

131. Ludwig’s angina is:
   a) An inflammation caused by candida
   b) An inflammation of the submandibular and sublingual area, most commonly following a dental or a salivary gland infection
   c) A complication of viral parotitis
   d) Purulent tonsillitis

132. Osteomyelitis of the jaw bones:
   a) Is caused by yeast
   b) Osteonecrosis can develop following periostitis and osteomyelitis
   c) It is usually a monoinfection caused exclusively by anaerobic bacteria
   d) It is usually caused by S. aureus

133. The possibilities of antiinfectious therapy in osteomyelitis of the jaw bones include:
   a) Amphotericin-B and Fluconazole
   b) Framykoin
   c) Clindamycin, amoxicillin-calvulanate
   d) Aminoglycosides, oxacillin

134. Acute purulent infection of the salivary glands is caused by:
   a) Cytomegalovirus
   b) C. albicans
   c) S. aureus, H. influenzae
   d) Morbilivirus

135. Acute non-purulent infection of the salivary glands is caused by:
   a) HSV-1
   b) Parotitis virus
   c) M. tuberculosis
   d) S. aureus
136. One of the following belongs to the factors that can predispose to the formation of oral candidosis:
   a) Sex
   b) Therapy by fluconazole
   c) Sjögren’s syndrome, diabetes, therapy using broad spectrum antibiotics
   d) Therapy by metronidazole

137. One of the following does not have any effect on the formation of oral candidosis:
   a) Using dental prosthesis
   b) Radiotherapy and cytostatic therapy
   c) Malignant illnesses and AIDS
   d) The type of used toothpaste

138. Pseudomembranous oral candidosis:
   a) Can be treated by macrolides
   b) In patients with AIDS appears only in rare circumstances and never spreads into the esophageal wall
   c) It is characterized by a white sheet
   d) It can not be confirmed by microbiological methods

139. Erythematous oral candidosis:
   a) Can be treated by Amphotericin B
   b) It does not proceed into the chronic stage
   c) It is formed most commonly in connection with wearing dental prosthesis
   d) It is characterized by a white sheet

140. Angular cheilitis is caused by:
   a) S. viridans and S. mutans
   b) E. coli
   c) Yeasts and S. pyogenes
   d) Mucor sp.

141. In the therapy of oral candidosis it is important to:
   a) Administrate acyclovir
   b) Administrate metronidazol
   c) Remove the predisposing factors and administrate antimycotics
   d) Administrate clindamycin

142. Perinatally acquired syphilis can appear in the infant with manifestation seen in:
   a) The bones
   b) The gastrointestinal tract
   c) The oral cavity
   d) This infection can not be transferred by perinatal route

143. Intrauterine acquired syphilis has manifestations seen in:
   a) The eye
   b) The stomach
144. Symptoms in the oral cavity can be present in infections caused by these microbes:
a) Chlamydia sp.
b) Mycoplasma sp.
c) N. gonorrhoeae
d) Legionella sp.

145. The following infections can have manifestations in the oral cavity beside systemic illness:
a) HHV-8 in AIDS
b) Toxoplasmosis
c) Enteric typhus
d) Neisseria meningitidis

146. The prevention of nosocomial infections in the dental ambulance includes:
a) Vaccination against legionellosis
b) Vaccination against hepatitis A and C
c) Barrier technique
d) Washing the mouth cavity with deionized water

147. Vesicular lesions in the mouth cavity can be caused by:
a) CMV a EBV
b) Parotitis virus
c) HSV-1 a coxsackie viruses
d) HHV-8 a Papilloma viruses

148. Coxsackie viruses:
a) They infect only the gingival in the oral cavity
b) They cause infectious enanthem with an enanthem and herpangina
c) They cause ulcerative colitis
d) They cause illnesses with symptoms that are present only in the mouth cavity

149. Papilloma viruses’ infections:
a) Are treated with acyclovir
b) They cause infections on the lips, in the oral cavity and on the larynx
c) In diagnosis we use the proof of antibodies as a standard method
d) They cannot be transferred via perinatal route

150. Among the causative agents of nosocomial infections in the dental ambulance belong:
a) Borrelia burgdorferi a Leptospira interrogans
b) HBV, HCV, respiratory viruses
c) Neisseria gonorrhoeae, Chlamydia trachomatis
d) Rotaviruses, adenoviruses, noroviruses
Questions on microbiology for students of dentistry - solutions:

1. b
2. a
3. a
4. c
5. b
6. a
7. b
8. c
9. b
10. c
11. a
12. d
13. d
14. d
15. b
16. a
17. b
18. a
19. a
20. a
21. c
22. b
23. a
24. b
25. d
26. a
27. a
28. b
29. b
30. a
31. a
32. c
33. a
34. a
35. b
36. a
37. a
38. a
39. b
40. b
41. a
42. a
43. c
44. c
45. c
46. a
47. d
48. c
49. d
50. c
51. c
52. b
53. d
54. a
55. a
56. a
57. a
58. c
59. b
60. d
61. b
62. a
63. c
64. a
65. c
66. b
67. a
68. b
69. b
70. a
71. c
72. b
73. c
74. a
75. b
76. b
77. d
78. a
79. c
80. c
81. c
82. a
83. b
84. b
85. a
86. b
87. b
88. b
89. b
90. a
91. a
92. b
93. b
94. a
95. c
96. b
97. b
98. b