44. Which of the following cestodes is capable of completing its life cycle in a single host?

a) Taeniasanginata
b) Echinococcusgranulosus
c) Diphylobothriumlatum
d) Hymenolepsis nana
e) Spirometramansoni

45. In bacterial growth curve, x-axis stands for time and y-axis for logarithmic bacterial count. In this growth curve which phase of growth shows no net increase in bacterial population due to low metabolic activities?

a) Lag phase
b) Log phase
c) Stationary phase
d) Death phase
e) Compensatory phase

46. Certain bacterial infectious diseases are diagnosed by detecting antibodies in patient's serum. Which of the following bacterial cell component is highly antigenic in nature?

a) Capsule
b) Flagellae
c) Endospore
d) Plasmid
e) Peptidoglycan

47. A gram positive non motile prokaryote isolated from the wound swab of a 5 year old child, which of the following characteristic differentiate it from eukaryotes?

a) Prokaryotes do not have membrane- bound organelles
b) The nucleoid is a region where the circular chromosome (DNA) is located
c) Size of cell typically 0.2-2.0µm in diameter
d) Ribosomes larger size (80s); smallersize (70s) in organelles
e) Cell division by mitosis.

48. Alcohol is denaturant that rapidly kills bacteria when applied in aqueous solution in range of;

a) 10-30%
b) 30-50%
c) 50-60%
d) 70-75%
e) 95-100%

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39. A 60 year old female complains of tenderness and pain around a peritoneal catheter. Blood cultures reveal Gram+ve, Catalase+ve cocci. Which of the following is the most likely organism predominantly found of skin?

a) α-hemolytic streptococci
b) staphylococcus epidermidis
c) bacteroidesfragilis
d) escheria coli
e) lactobacillus spp

40. Cerebral malaria is caused by?

a) Plasmodium vivax
b) Plasmodium falciparum
c) Plasmodium malariae
d) Plasmodium ovale
e) None of the above

41. An intermediate form of diphyllobothriumlatumlives in which of the following animals?

a) Fish
b) Mosquitoes
c) Pigs
d) Snails
e) Ticks

42. A 40 year sheepherder is brought to the ER in anaphylactic shock. USG of abdomen reveals a large cystic mass in the liver. Needle aspiration of the liver cyst reveals "hydatid sand". Which of the following is the most likely agent involved?

a) Ascarislumbricoides
b) Eschinococcusgranulosus
c) Cclonorchissinesis
d) Fasciolopsis hepatica
e) Schistosomamansoni

43. Analysis of a patient's stool reveals small structures resembling rice grains, which on microscopy are found to be proglottids. Which of the following is the most likely organism in this patient's stool?

a) Ascarislumbricoides
b) Entroblusvermicularis
c) Necatoramericanus
d) Taeniasaginata
e) Trichuristrichura

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24. Autosomal dominant disorders are different from autosomal recessive ones because:

a) Complete penetrance is common in them
b) They are manifested in the heterozygous state
c) Onset is early in life
d) All carriers are males
e) All sufferers are females

D

25. Which type of immunity provides us with defense against intracellular microbes?

a) Humoral immunity
b) Cell mediated immunity
c) Natural immunity
d) Immune complex mediated hypersensitivity
e) Immediate type of hypersensitivity

26. In HIV positive patient presents with long standing fever, weight loss, diarrhea and protracted respiratory tract symptom. Which test will you order to assess the immune status of this patient?

a) CD8+ lymphocyte count
b) CD4+ lymphocyte count
c) Sputum culture
d) Total leukocyte count
e) Absolute neutrophil count

b

27. A graft kidney donated by an identical twin will not be rejected because:

a) There is ABO blood group matching
b) There is Rh blood group matching
c) There is HLA matching
d) Recipient is immunosuppressed
e) Donor organ lacks antigenicity

28. Following an IV dose of penicillin a middle aged man develops skin rash and breathing difficult followed by hypotension and shock. The hypersensitivity reaction is most likely mediated by which of the following?

a) C3b
b) IgE
c) IGm
d) Prostaglandins
e) CD4+lymphocytes

B

29. A 55 year old female is diagnosed with ovarian carcinoma.l cytological analysis of ascetic fluid shows malignant cells. Which property of malignant tumors best explains this?

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20. On sectioning of an organ from a 60 year old man at the time of autopsy, a focal, wedge-shaped area that is firm is accompanied by extensive hemorrhage giving it a red appearance. The lesion has the base on the surface of the organ. In which of the following situations will this lesion most likely occur?

a) Lung with pulmonary thromboembolism
b) Heart with coronary thrombosis
c) Liver with hypovolemic shock
d) Kidney with septic embolus
e) Spleen with embolized mural thrombus

A

21. A 55 year old woman has been treated in the hospital for pancreatitis for the past three weeks. She is examined one morning on rounds and found to have a swollen right leg. It is tender to palpation posteriorly but is not w3arm. This condition is most likely to be the result of which of the following vascular complication?

a) Venous thrombosis
b) Septic embolization
c) Congestive heart failure
d) Cellulitis
e) Infarction

A

22. Grandma falls down the steps leading to the entrance of the house of a relative hosting a family reunion, who is heard to remark, "I have been meaning to get that loose step fixed" Grandma is hospitalized for surgery to replace the broken hip she sustains and is then moved to a nursing home, but she is unable to ambulate until about a month later when she dies suddenly. Which of the following is most likely to be the immediate cause of death found at autopsy?

a) Squamous cell carcinoma of lung
b) Fat embolism
c) Pulmonary embolism
d) Pneumonia with pneumococcus
e) Amniotic fluid embolism

B

23. A 20 year old Nogroid man from Maldran coast was stabbed on the upper arm, he received emergency treatment and his wound healed. We developed a raised scar with boundaries beyond the original wound, and it did not regress. Which of the following terms best describes this conditions?

a) Cicatrix
b) Keloid
c) Callus
d) Granulation tissue
e) Wound

B

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a) Staph aureus
b) Stah epidermidis
c) Lactobacillus
d) Virdians streptococci
e) Escherichia coli

59. A burnt patient developed a wound infection, and a bacteriological culture of the swab from the site reveals non lactose fermenting colonies with bluish green pigment on MacConkey's medium. Gram staining showed gram-negative rods. Oxidase test was positive. The organism was relatively resistant to antibiotics but susceptible to Carbapenems (Meropenem), Gentamicin, and Tobramycin. The organism is likely identified as.

a) Escherichia coli
b) Klebsiellapneumoniae
c) Proteus mirabilis
d) Serratiamarcescens
e) Pseudomonas aeruginosa

60. Hepatitis D virus is the defective virus which can replicate only in cells already infected with which of the following viruses

a) Hepatitis A virus
b) Hepatitis B virus
c) Hepatitis G virus
d) Hepatitis C virus
e) HIV

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10. Keloid is

a. Exuberant granulation tissue
b. Excessive collagen accumulation
c. Scar due to burn of severe degree
d. Recurrent fibroblastic tumor
e. Vascularization

11. During repairing process scarring does not occur in :-

a. Myocardial infarction
b. Lobar pneumonia
c. Bacterial abscess
d. Peritonitis
e. Osteomyelitis

12. Proud flesh is another name for :-

a. Desmoids
b. Fibromatoses
c. Exuberant granulation
d. Hypertrophic scar
e. Keloid

13. A 12 year old girl begins to limp while playing soccer. She has pain in her right leg and upper [illegible]. Her temperature is 102°F. X-Ray of the femur reveals that the periosteum is eroded. Assuming [illegible] managed as an infectious disease, what of the following is the most likely causative organism?

a. Listeria monocytogenes
b. Salmonella enteritidis
c. Staphylococcus aureus
d. Staphylococcus saprophyticus
e. Streptococcus pneumonia

Osteomyelitis.

14. A box of chicken sandwiches with mayonnaise, prepared by a person with a boil on his neck, is left out of t refrigerator and eaten by 3 residents. They become violently ill 2 hours after eating the sandwiches. Which the following is the most likely cause?

a. Clostridium perferingens toxin
b. Coagulase from S. aureus in the chicken
c. Penicillinase given to inactivate penicillin in the meat
d. Staphylococcus aureus enterotoxin
e. Staphylococcus aureus leukocidin

15. A tertiary care hospital experiences an outbreak of MRSA wound infections. You suspect [illegible] members are healthy carriers of the bacteria. Which of the following would be expected [illegible] MRSA populated site in staff members?

a. Hands
b. Axilla
c. Anterior nares

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Department of Pathology
Azra Naheed Medical College
Grand Test-3, 06 February 2018
MBBS 3rd Year (MCQ)
(Special Bacteriology-1, Healing and repair, inflammation

Time Allowed: 40 min

Total Marks: 40

Name: _____

Roll No: _____

Date: _____

Instructions:
1. All objective questions are to be attempted on the paper and returned to the Invigilator within specified time after you have received the question paper.
2. Any cuttings or overwriting in answering the objective part will not be accepted and no marks will be given even if the answer is correct.

1. A mother brings her 6-year-old child in emergency. Child develops a severe sore throat. On examinati doctor found a grayish exudates (pseudo-membrane) over tonsils and pharynx which bleeds on touch. Wh of the following is most likely the cause of child pharyngitis?
   a. *Streptococcus pyogenes group A*
   b. *Haemophilus influenzae*
   c. *Corynebacterium diphtheriae*
   d. *Staphylococcus aureus*
   e. *Mycoplasma pneumoniae*

2. An immune-compromised chronic diabetic patient had to go for amputation of his foot after ne ed gangrene. The organism isolated from the pus was a gram positive rod, showing double zone blood agar and positive Nagler's reaction. Pick the causative agent:
   a. *Clostridium difficile*
   b. *Corynebacterium diphtheriae*
   c. *Clostridium perfeningens*
   d. *Clostridium botilinum*
   e. *Bacillus anthracis*

3. A young married woman was received in gynae department with history of increased amount of thin, grey-white, fishy vaginal discharge for the last few days. Gram staining revealed clue cells. Whiff test was also positive. Which one of the following is the most likely causative agent?
   a. Candida albicans
   b. Trichomonas vaginalis
   c. *Gardnerella vaginalis*
   d. *Lactobacilli*
   e. Gonococci

4. A shephard presented to the dermatology department with painless ulcer with black [illegible] had history of trauma a few days back. Which of the following Gram positive rod, also [illegible] the most likely causative agent?

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22. After extraction of a wisdom tooth, an 18-year old male student is diagnosed with sub-acute bacterial endocarditis (SBE). He has a congenital heart disease that has been under control. Which of the followin most likely organism causing the infection?

a. *Staphylococcus aureus*
b. *Staphylococcus epidermidis*
c. *Streptococcus pneumoniae*
d. *Streptococcus viridans*
e. *Enterococcus faecalis*

23. Which one of following laboratory tests is the most appropriate to distinguish *Streptococcus pyogenes* fr other β-hemolytic streptococci?

a. Ability to grow in 6.5% NaCl
b. Activation of C-reactive protein
c. Hydrolysis of esculin in the presence of bile
d. Inhibition by bacitracin
e. Inhibition by optochin

24. Which one of the following is the virulence factor produced by *Staphylococcus aureus* that prevents the activation of complement and thereby reduces opsonization by C3b?

a. Catalase
b. Coagulase
c. Endotoxin
d. Protein A
e. Teichoic acid

25. The main reason why methicillin-resistant *Staphylococcus aureus* (MRSA strains) are resistant to methicillir nafcillin is:

a. They produce beta-lactamase that degrades the antibiotics.
b. They have altered penicillin-binding proteins that have reduced binding of the antibiotics.
c. They have mutant porin proteins that prevent the antibiotics from entering the bacteria.
d. They have plasmid-encoded export proteins that remove the drug from the bacteria.
e. They have multidrug resistant pumps.

26. A 22-year-old man develops marked right lower quadrant abdominal pain over the past day. On physic examination there is rebound tenderness on palpation over the right lower quadrant. Laparoscopic surgery performed, and the appendix is swollen, erythematous, and partly covered by a yellowish exudate. It is removed, and a microscopic section shows infiltration with numerous neutrophils. The pain experienced by this patient is predominantly the result of which of the following key chemical mediators?

a- Complement C3b and IgG
b- Interleukin-1 and tumor necrosis factor
c- Histamine and serotonin
d- Prostaglandin and bradykinin
e- Leukotriene and HPETE

27- A 58-year-old woman has had a cough with fever for 3 days. A chest radiograph reveals infiltrates in th right lower lobe. A sputum culture grows Streptococcus pneumoniae. The clearance of these organisms fror

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which enhances engulfment, and more bacteria are destroyed. Which of the following substances in plasma is most likely to produce this effect?

a- Complement C3b
b- Glutathione peroxidase
c- Immunoglobulin M
d- P-selectin
e- NADPH oxidase

40- In an experiment, surgical wound sites are observed following suturing. An ingrowth of new capillaries is observed to occur within the first week. A substance elaborated by macrophages is found at the wound site stimulate this capillary proliferation. Which of the following substances is most likely to have this function?

a- Platelet-derived growth factor
b- Phospholipase C-gamma
c- Fibronectin
d- Fibroblast growth factor
e- Epidermal growth factor

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14. A 45 years old female presented with severe abdominal pain in her right hypochondrium.She also gave history of bloody diarrhea 4 episodes in one day and tenesmus.Fresh film of the faeces showed trophozoites with ingested RBCs. What is the most likely diagnosis?

a. Bacillary dysentery
b. Leishmaniasis
c. Trypanosomiasis
d. Traveller's diarrhea
e. Amoebic dysentery

15. A 28 years old female gave history of high grade fever after a mosquito bite. Fever occurred every third day. Examination showed pallor and spleenomegaly. Benign quartan fever is characteristic of

a. Plasmodium falciparum
b. Hookworm infection
c. Plasmodium ovale
d. plasmodium malariae
e. Giardia lamblia

16. After sporozoite gain entrance to human body it undergoes developmental cycle first in liver then in RBC, only after which fever is seen. This incubation period varies between plasmodium species. Which of the following species has the longest incubation period?

a. *Plasmodium falciparum*
b. *Plasmodium malariae*
c. *Plasmodium ovale*
d. *Plasmodium vivax*
e. *Plasmodium Ovale and vivax*

17. A patient presented with non- bloody diarrhea, flatulence and abdominal pain. She gave history of drinking contaminated water. Stool examination showed cysts in faeces.The trophozoites of this organism are flat tear drop shaped or pear shaped with a sucking disc at its anterior end.The most likely organism is

a. Malariae falciparum
b.Hook worm
c. Giardia lamblia
d.Hymenolepsis nana
e.Taenia solium

18. A patient taking anti malarial drugs irregularly for chronic falciparum malaria now presented with complain of dark or black coloured urine.Black water fever was diagnosed.The dark colour of the urine is because of

a. presence of malarial parasites in urine
b. Hemolysis destroying affected parasitized RBCs and unaffected RBCs
c. Presence of proteins in urine
d. Excretion of the anti-malarial drugs in urine
e. Excretion of glucose

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c. Oropharynx
d. Perineum

16. Which of the following test is used to distinguish Streptococcus pyogenes from Streptococcus agalactiae? CAMP
a. Lancefield grouping
b. Esculin hydrolysis
c. Growth in 6.5 % NaCl
d. Growth in presence of bile
e. CAMP test

17. A 10 year old girl came with the history of fever and sore throat for the last two to three weeks. She was diagnosed to have Rheumatic fever. The most likely causative agent is:
a. *Streptococcus viridians*
b. *Group A- B hemolytic Streptococci*
c. *Streptococcus bovis*
d. *Streptococcus pyogenes*
e. *Streptococcus pneumoniae*

18. Which test distinguishes Staphylococcus epidermidis from Staphylococcus saprophiticus?
a. Catalase test
b. Optochin sensitivity test
c. Coagulase test
d. DNase test
e. Novobiocin sensitivity test

19. Which of the following is Alpha hemolytic bacteria, catalase negative, found in chains and is optochin resistant?
a. S. aureus
b. S. pyogenes
c. S. agalactiae
d. S.viridans group
e. S. pneumoni

20. Enterococcus faecalis cause all the following diseases except?
a. Meningitis
b. Septicaemia
c. Endocarditis
d. Urinary tract infections
e. Food poisoning

1. A 22 year old male with Thalassemia underwent splenectomy. One week after the surgery he developed productive cough, rusty colored sputum, high grade fever, dyspnea. The most likely bacteria is?
a. S. aureus
b. L. monocytogenes
c. S. agalactiae
d. S. pneumoniae
e. S. mutans

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Special Baderidogy-2

A premature baby boy developed meningitis one week after birth. Mother had history of consumption of unpasteurized milk and cheese. Gram staining of CSF revealed L-shaped Gram positive rods with tumbling motility. What is the most likely causative agent?

a. *Neisseria meningitidis*
b. *Streptococcus pneumoniae*
c. *Listeria monocytogenes*
d. *Streptococcus agalactiae*
e. *E.coli*

6. A middle aged man developed hard, non-tender swelling at the angle of mandible, having draining pus through sinus tracts. Pus from draining sinus revealed Gram-positive branching rods with presence of hard, lobulated, sulfur granules. What is the most likely causative agent?

a. *Nocardia*
b. *Actinomycetes israelii*
c. *Bacillus anthracis*
d. *Clostridium difficile*
e. *Staphylococcus aureus*

7. A patient presented with pseudomembranes in the throat leading to respiratory distress. The organism obtained was a Gram positive rod with metachromatic granules. Name the causative agent:

a. *Nocardia*
b. *Actinomycetes israelii*
c. *Bacillus anthracis*
d. *Corynebacterium diphtheriae*
e. *Listeria monocytogenes*

8. An immune-compromised chronic diabetic patient had to go for amputation of his foot after he developed gas gangrene. The organism isolated from the pus was a gram positive rod, showing double zone of hemolysis on blood agar and positive Nagler's reaction. Pick the causative agent:

a. *Clostridium difficile*
b. *Corynebacterium diphtheriae*
c. *Clostridium perfringens*
d. *Clostridium botilinum*
e. *Bacillus anthracis*

9. A 40 years old woman has blurred vision and slurred speech. She is afebrile. She is well known in her neighbourhood for her expertise in home canned vegetables and fruits. The most likely cause of her illness is:

a. *Clostridium botulinum* toxin acting on neuromuscular junction
b. *Clostridium botulinum* toxin acting on cranial nerves
c. *Clostridium botulinum* toxin acting on adrenergic receptors
d. *Clostridium deficile* toxin acting on acetylcholine receptors
e. *Clostridium perfringens* toxin acting on neuromuscular junction

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35- A 19-year-old woman who works indoors spends a day outside gardening. She does not wear a hat sunscreen. That evening her partner remarks that her face appears red. Which of the following dermal changes most likely accounts for her red appearance?

a- Neutrophil aggregation
b- Hemorrhage
c- Edema
d- Hemolysis
e- Vasodilation

36- A 45-year-old woman has had a chronic, non-productive cough for 3 months, along with intermittent fever. She has a chest radiograph that reveals multiple small parenchymal nodules along with hilar and cervical lymphadenopathy. A cervical lymph node biopsy is performed. Microscopic examination of the biopsy shows noncaseating granulomatous inflammation. Cultures for bacterial, fungal, and mycobacterial organisms are negative. Which of the following chemical mediators is most important in the development of her inflammatory response?

a- Interferon gamma
b- Bradykinin
c- Complement C5a
d- Histamine
e- Prostaglandin E2

37- A 7-year-old girl had had episodes of sneezing with watery eyes and runny nose for the past 2 weeks. On physical examination she has red, swollen nasal mucosal surfaces. She has had similar episodes each spring and Summer when the amount of pollen in the air is high. Her symptoms are most likely to be mediated by the release of which of the following chemical mediators?

a- Complement C3b
b- Platelet activating factor (PAF)
c- Tumor necrosis factor (TNF)
d- Histamine
e- Immunoglobulin G

38- A 45-year-old man has been working hard all day long carrying loads of bricks to build a wall. He takes a non-steroidal anti-inflammatory drug (Ibuprofen). Which of the following processes is this drug most likely to diminish in his arms?

a- Thrombosis
b- Pain
c- Necrosis
d- Fibrinolysis
e- Scar formation

39- In an experiment, Enterobacter cloacae organisms are added to a solution containing leukocytes and blood plasma. Engulfment and phagocytosis of the microbes is observed to occur. Next a substance is added

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MBBS 3rd Year ...
(Special Bacteriology ...)

Time Allowed: 25 min

Name: ___________

Roll No: ___________

Date: ___________

Instructions:

1. All objective questions are to be attempted ... returned to the invigilator within specified time ... received the question paper.
2. Any cuttings or overwriting in answering the objective ... not be accepted and no marks will be given even if the answer is correct.

1. A 28 year old woman presents to her gynecologist with complaints of malodorous vaginal discharge. Upon examination the physician notices a thin gray vaginal discharge with no vaginal redness. A ... test was positive for fishy odor. Which of the following consistent with this case?
   a. Clue cells
   b. Gram negative diplococcic in PMNS
   c. Koilocytic cells
   d. Owl-eye inclusions
   e. Tzank smear
2. A food commonly associated with *Bacillus cereus* food poisoning is?
   a. Baked potatoes
   b. Reheated fried rice
   c. Honey
   d. Green beans
   e. Hot rice
3. Tetanus toxin (tetanospasmin) is responsible for blockage of which of the following inhibitory neurotransmitter?
   a. Acetylcholine
   b. Protective antigen
   c. Glycine and GABA
   d. Proteins
   e. Activation of acetylcholine esterase

A shephard presented to the dermatology department with painless ulcer with black eschar on his hand. He had history of trauma a few days back. Which of the following Gram positive rod, also used for bio-terrorism is the most likely causative agent?

a. *Bacillus anthracis*
b. *Clostridium tetani*
c. *Bacillus cereus*
d. *Clostridium perferingens*
e. *Corynebacterium diphtheriae*

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31- A 43-year-old woman has had a chronic cough with fever and weight loss for the past month. A chest radiograph reveals multiple nodules from 1 to 4 cm in size, some of which demonstrate cavitation in the lobes. A sputum sample reveals the presence of acid fast bacilli. Which of the following cells is the most important in the development her lung lesions?

a- Macrophage
b- Fibroblast
c- Neutrophil
d- Mast cell
e- Platelet

32- A 38-year-old woman has been taking acetylsalicylic acid (aspirin) for arthritis for the past 6 weeks. Joint pain is temporarily reduced via this therapy. However, she now has occult blood identified in her stool. Which of the following substances is most likely inhibited by aspirin to cause this complication?

a- Leukotriene B4
b- Interleukin-1
c- Thromboxane
d- Bradykinin
e- Hageman factor

33- A small sliver of wood becomes embedded in the finger of a 25-year-old man. He does not remove it. over the next 3 days the area around the sliver becomes red, swollen, and tender. Neutrophils migrate in the injured tissue. Expression of which of the following substances on endothelial cells is most instrumental promoting this inflammatory reaction?

a- Interferon gamma
b- Hageman factor
c- Lysozyme
d- E-selectin
e- Prostacyclin

34- A 37-year-old man has had nausea and vomiting for 5 weeks. He experienced an episode of hematemesis yesterday. On physical examination he has no abnormal findings. Upper GI endoscopy is performed, and there is a 1.5 cm diameter lesion in the gastric antrum with loss of the epithelial surface. These findings are most typical for which of the following pathologic processes?

a- Abscess
b- Serositis
c- Granuloma
d- Gangrene
e- Ulcer

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a. *Bacillus anthracis*
b. *Clostridium tetani*
c. *Bacillus cereus*
d. *Clostridium perferingens*
e. *Corynebacterium diphtheriae*

5. A middle aged man developed hard, non-tender swelling at the angle of mandible, having draining pus through sinus tracts. Pus from draining sinus revealed Gram-positive branching rods with presence of hard, lobulated, sulfur granules. What is the most likely causative agent?
a. *Nocardia*
b. *Actinomycetes israelli*
c. *Bacillus anthracis*
d. *Clostridium difficile*
e. *Staphylococcus aureus*

6. A young girl developed vomiting & nausea 3-4 hours after ingestion of reheated fried rice. On Gram staining Gram positive rods were identified. Which of the following is the most likely causative agent?
a. *Staphylococcus aureus*
b. *Bacillus cereus*
c. *Clostridium perferingens*
d. *Listeria monocytogenes*
e. *Enterococcus fecalis*

7. A 28 year old woman presents to her gynecologist with complaints of malodorous vaginal discharge. Upon examination the physician notices a thin gray vaginal discharge with no vaginal redness. A whiff test was positive for fishy odor. Which of the following consistent with this case?
b. Clue cells
c. Gram negative diplococcic in PMNS
d. Koilocytic cells
e. Owl-eye inclusions
f. Tzank smear

8. Neo-vascularization in primary healing is maximum in which day
a. In 24 – 36 hours
b. By day 03
c. In 3-5 days
d. After 05 days
e. After one month

9. Type IV collage is present in:-
a. Cartilage
b. Descemet's membrane
c. Basement membrane
d. Dermo-epidermal junction
e. Subcutaneous tissue

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the lung parenchyma would be most effectively accomplished through generation of which of the follow substances by the major inflammatory cell type responding to this infection?

b- Platelet activating factor
Prostaglandin E2
c- Kallikrein
d- Leukotriene B4
e- Hydrogen peroxide

28- A clinical study is performed of patients with pharyngeal infections. The most typical clinical course averages 3 days from the time of onset until the patient sees the physician. Most of these patients experience fever and chills. On physical examination, the most common findings include swelling, erythema, and pharyngeal purulent exudate. Which of the following types of inflammation did these patients most likely have?

a- Granulomatous
Acute
c- Gangrenous
d- Resolving
e- Chronic

A 58-year-old man has had increasing dyspnea for 6 years. He has no cough or fever. He had chronic exposure to inhalation of silica dust for many years in his job. A chest x-ray now shows increased interstitial markings and parenchymal 1 to 3 cm solid nodules. His pulmonary problems are most likely to be mediated through which of the following inflammatory processes?

a- Neutrophilic infiltrates producing leukotrienes
Foreign body giant cell formation
c- Plasma cell synthesis of immunoglobulins
d- Mast cell histamine release
e- Macrophage elaboration of cytokines

30- A 22-year-old woman has premature labor with premature rupture of fetal membranes at 20 weeks gestation. Prior to that time, the pregnancy had been proceeding normally. A stillbirth occurs two days later. Microscopic examination of the normal-sized placenta reveals numerous neutrophils in the amnion and chorion, but no villitis. The premature labor was most likely mediated by the effects from release of which of the following substances?

a- Immunoglobulin
Prostaglandin
c- Complement
d- Fibrinogen
e- Lymphokines

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16. A woman was hiking in an isolated area, when a shunk appeared and bit her on the leg. She now presents to your emergency room about an hour after the bite. Which one of the following is the most appropriate thing to do?

(a) Give rabies vaccine and hyperimmune globulin immediately.
(b) Reassure her that rabies is not a problem because shunks do not carry rabies.
(c) Quarantine the animal for 10 days and only treat her if signs of rabies appear in the animal.
(d) Test the patient's serum for antibodies now and in 10 days to see if there is a rise in antibody titer before treating her.
(e) Give hyperimmune globulin.

17. Kuru was a fatal disease of certain New Guinea natives and was characterized by tremors and ataxia; Creutzfeldt–Jakob disease (CJD) is characterized by both ataxia and dementia . CJD has been accidentally transferred to others by contaminated growth hormone from human pituitary glands, corneal transplants, and contaminated surgical instruments. These diseases are thought to becaused by which of the following?

(a) Cell wall-deficient bacteria
(b) Environmental toxins
(c) Flagellates
(d) Prions
(e) Slow viruses

18. Two viral vaccines are expected to reduce the incidence of cancers. Which vaccines are these?

(a) Adenovirus and mumps virus vaccines
(b) HAV and poliovirus vaccines
(c) HPV 16/18 and hepatitis B vaccines
(d) Measles virus and rubella virus vaccines
(e) Rota virus and VZV vaccines

19. A group of healthcare workers from the United States staffing a clinic in Pakistan were working with children admitted with acute flaccid paralysis. The illness began with fever, nausea, vomiting, and severe headache followed by neck stiffness, muscle pain and weakness, and constipation. None of the workers became ill because they had been vaccinated against this disease. Which viral vaccine protected these workers?

(a) HAV
(b) Measles virus
(c) Poliovirus
(d) Rubella virus
(e) Yellow fever virus

20. A 6-month-old infant has had watery diarrhea for 5 days; he vomited a couple of times. The stools have no blood or pus. He is dehydrated. Two other toddlers who visited for a day are also sick. What is the most likely cause of this child's diarrhea?

(a) Enterovirus
(b) Norwalkvirus
(c) Rota virus
(d) *Salmonella enterica*
(e) *Staphylococcus aureus* Enterotoxin

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(3) (16) (11) 136

Department of Pathology
Azra Naheed Medical College
Grand Test- 8, 17th July 2018
MBBS 3rd Year (MCQ)
(Virology)

Time Allowed: 30 min **Total Marks: 30**

Name: _____

Roll No: _____

Date: _____

Instructions:

1. **All objective questions are to be attempted on the paper and returned to the invigilator within specified time after you have received the question paper.**
2. **Any cuttings or overwriting in answering the objective part will not be accepted and no marks will be given even if the answer is correct.**

1. Virion is defined as:
(a) Extracellular infectious particle
(b) Smallest virus
(c) A smallest particle similar to virus
(d) Contain both DNA and RNA
(e) Contain protein and glycoprotein only

2. Which of the following is not pox virus?
(a) Cow pox
(b) Molluscum contagiosum
(c) Chicken pox
(d) Small pox
(e) Monkey pox

3. All of the following statements are true about poliovirus except:
(a) It is transmitted by feco-oral route
(b) There is single serotype causing infection
(c) Asymptomatic infections are common in children
(d) Live attenuated vaccine produces herd immunity
(e) It is an acute infectious disease of CNS.

4. HIV affects
(a) T helper cells and macrophages
(b) Only T helper cells
(c) NK cells
(d) B-lymphocytes
(e) Neutrophil

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Department of Pathology
Azra Naheed Medical College
Short test-8 , 25 July 2017
MBBS 3rd Year (MCQ)
(Special Bacteriology-2 & Parasitology)

Time Allowed: 23 min **Total Marks: 20**

Name: _____

Roll No: _____

Date: _____

Instructions:

1. **All objective questions are to be attempted on the paper and returned to the invigilator within specified time after you have received the question paper.**
2. **Any cutting or overwriting in answering the objective part will not be accepted and no marks will be given even if the answer is correct.**

1. A 3-year-old boy had complaint of headache with a two days history of fever of 39.7° C and extremely lethargic. A lumbar puncture revealed 2000 neutrophils/mm^3 and CSF glucose level of 9 mg/dL (normal 15 to 45 mg/dL). The Gram stain showed gram-negative coccobacilli. The most probable infecting organism is?
   a. Streptococci Gp B
   b. Neisseria meningitidis
   c. Streptococcus pneumonia
   d. Escherichia coli
   e. Haemophilus influenzae

2. A patient was received in emergency department with complaints of low grade fever, chronic cough, night sweats and body aches. Mycobacterium tuberculosis was among the top differentials. Which media is used to culture this pathogen?
   a. Lofflers medium
   b. Lowestein- Jensen media
   c. Tellurite medium
   d. Chocolate agar
   e. Blood agar

3. A patient with leonine (lion-like) facies and hypo-pigmented macular skin lesions came to the medical outpatient department. He was suspected to have leprosy. Mycobacterium leprae is stained by which of the following techniques in a basic health unit laboratory?
   a. Modified ZN staining with weak acid
   b. PAS staining
   c. Albert staining
   d. Rhodamine-auramine staining technique
   e. Gram staining technique

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9. **Ticks does not serve as a vector for the transmission of each of the following diseases?**
a. Rocky mountain spotted fever
b. Epidemic typhus
c. Tularemia
d. Lyme disease
e. Leprosy

10. **Which of the following zoonotic Gram negative rod has flea as a vector and leads to plague?**
a. Brucella
b. Yersinia
c. Pasteurella
d. Bordetella
e. Legionella

11. A 50 years old male presented with severe abdominal pain. Later he also developed bloody stools with mucus. Laboratory findings and clinical tests reveals amoebiasis. Which of the following will be the most appropriate intestinal finding in this patient?
a. Cobble stone appearance of the intestine
b. Granulomatous inflammation
c. Flask shaped ulcers with undermined edges
d. Blunting of the intestinal villi
e. Tumor like masses

12. What form of Giardia lamblia plays role in its transmission?
a. Cysts
b. Karyosomes
c. Metacyst
d. Trophozoites
e. Nuclei

13. **Abdominal ultrasound of a patient showed liver abscess. The pus was aspirated and examined which showed amoebic trophozoites. Which of the following is the characteristic of the liver abscess caused by amoebic dysentery?**
a. yellow colored pus containing dead bacteria
b. Chocolate colored pus containing red blood cells and dead liver cells
c. extensive necrosis
d. Pus containing only E.histolytica cysts
e. granulation tissue

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b) Infectious mononucleosis
c) Rabies
d) HIV
e) Ca lung

54. A 45 year old diabetic female is diagnosed with vulvovaginitis. When a smear is made, an oval shaped structure with a single bud is seen. Which of the following is the most likely organism?

a) Coccidioidesimmitis
b) Malassezia furfur
c) Aspergillus fumigates
d) Pneumocystis carinii
e) Candida albicans

55. An athelete complains of discoloration and thickening of skin on his foot. The lesions are red, circular, with a vesiculated border and a central healing area. The most appropriate laboratory procedure would be:

a) Potassium hydroxide mount of skin scrapings
b) Giemsa stain for multinucleated giant cells
c) Fluorescent antibody stain of vesicle fluid
d) Four fold rise in antibody titer against the organism
e) Gram stain of skin smear

56. An athlete went to Olympics experienced a superficial infection in his foot. Multiple papules surrounded by clear area of normal skin were observed by him. His was diagnosed to have athletes foot. Which pathogen is responsible for his lesion?

a) Sporothrixschenckii
b) Tineaversicolor
c) Tineanigra
d) Dermatophytes / Ringworm
e) Staphylococcus aureus

57. A staff nurse collects all contaminated sheets, gloves, masks and caps from operation theater after appendectomy. She sterilizes all objects to refuse them. Which technique is most appropriate to get rid of bacteria and spores:

a) Boiling them at 100 degrees C
b) Tyndalization
c) Inspissation
d) Autoclaving
e) Pasteurization

58. Micro organisms that keep vaginal pH low

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15. Which of the following persons has the LEAST risk for a subsequent malignant neoplasm because of the condition given?

A

a) A 40 year old male with chronic ulcerative colitis
b) A 35 year old female with cervical dysplasia
c) A 55 year old male with prostatic glandular hyperplasia
d) A 65 year old maloe with oral leukoplakia and atypia
e) A 50 year old male with chronic alcoholism and hepatic cirrhosis

16. One of the genetic alterations found in human carcinomas that leads to loss of tumor suppression is?

B

a) KRAS
b) WT-I
c) c-myc
d) 9,22 translocation
e) Bcl-2

17. Children in the Ukraine following the Chernobyl incidence exposed to radiations can develop:

C

a) Kaposi's sarcoma
b) Small cell anaplastic carcinoma of lung
c) Thyroid carcinoma
d) Nasopharyngeal carcinoma
e) Endometrial carcinoma

18. Biopsy of the bladder is performed in a 62 year old male who has complained of pain on urination. Microscopically, the epithelium shows cells with marked hyperchromatism and increased nuclear cytoplasmic ratio involving the full thickness. However, these changes are confined to the epithelium above the basement membrane. This process is best described as:

e

a) Metaplasia
b) Minimal dysplasia
c) Microinvasion
d) Hyperplasia
e) Carcinoma in situ

19. All of the following features are seen in a malignant cell except:

A

a) Low N/C ratio
b) Prominent nucleoli
c) Hyperchromasia
d) Scanty cytoplasm
e) Necrosis

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49. A patient was hospitalized after an automobile accident. His wound became infected and treated with tobramycin, carbenicillin, and clindamycin. Five days after antibiotic therapy initiation, patient developed severe diarrhea and enterocolitis. Antibiotic associated diarrhea and the more serious pseudomembranous enter colitis can be caused by

a) Clostridium sordellii
b) Clostridium perfringens
c) Clostridium difficile
d) B.cereus
e) B.fragilis

50. A 19 year boy had a severe headache which is confined to occipital region and neck. He was brought to emergency room in confused and disoriented state. Before this condition he had nausea, vomiting, difficulty in breathing and eating. Physical examination shows that airways are open and clear, BP 110/80mmHg, pulse 108/min, temperature 38.40C. Patient had neck rigidity. Which of the following bacterium is most likely the cause of it?

a) Streptococcus pneumonia
b) Haemophilusinfluenzae
c) Streptococcus agalactiae
d) Neisseria meningitides
e) Staphylococcus aureus

51. In a community an epidemic of diarrhea occurred. Every patient complained of passing watery stool without fever or abdominal pain. They have remarkable dehydration. On howspital admission a normal saline drip helps a lot. The organism was cultured on TCBS agar. The most likely etiological organism for this epidemis is;

a) Vibrio cholera
b) Pseudomonas spp
c) E.coli
d) Proteus
e) Klesiellaspp

52. Chicken pox is caused by

a) Cytomegallovirus
b) Rotavirus
c) Papilloma virus
d) Varicella zoster virus
e) Adenovirus

53. The presence of Negri bodies is associated with

a) Mumps

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21. A vaccine against *Morbillivirus* (measles virus), introduced in 1963, has decreased the incidence of measles from an expected event in the life of every child to 50 to 200 cases per year in the United States. Which of the following best characterizes the vaccine that has dramatically reduced the incidence of this disease in the United States?

(a) Inactivated virus
(b) Live attenuated virus
(c) Recombinant viral protein
(d) Virus-specific immunoglobulin
(e) Wild-type live virus

22. A neonate born to a woman with chronic hepatitis B infection is at great risk of contracting the virus and subsequently becoming a chronic carrier of HBV. Which of the following is the best approach to preventing the neonate becoming infected?

(a) Give hepatitis B immunoglobulin (HBIg) at birth
(b) Give HBIg at 6 months, when maternal antibodies have diminished
(c) Immunize with recombinant HBV vaccine (rHBV) a t birth
(d) Immunize with HBV vaccine at 1year
(e) Give HBIg and immunize with HBV vaccine at birth

23. A humanitarian healthcare worker deployed in emergency to Sudan, forgot to use insect repellant. Four days after being bitten several times by mosquitoes, he developed fever, chills, headache, back ache, and muscle aches. Two days later, he suffered a nose bleed and noticed his stools were black. The next day, he was jaundiced and vomited black material. Despite supportive care, he developed organ failure and died. What was the cause of this patient's death?

(a) Dengue hemorrhagic fever
(b) Hanta virus cardiopulmonary syndrome
(c) Hemorrhagic fever with renal syndrome
(d) SARS
(e) Yellow fever

24. A group of 15 young college students harvested oysters from a bay near Galveston despite a warning sign that the area was contaminated with sewage. Ten ate the oysters raw. Twenty-five days later, six of them presented to their physicians with sudden onset of acute jaundice and liver function abnormalities. Which of the following is the most likely cause of their infections?

Food borne infection

(a) HAV
(b) HBV — Blood transfusion, Tattoing
(c) HCV — cirhosis
(d) HDV — sexual
(e) HEV — fecooral

25. A young refugee from Afghanistan developed mild fever, cervical lymphadenopathy, and a rash that began on her face and spread downward over her trunk. After 3 days, the rash disappeared. She had not been immunized against any infections except diphtheria and tetanus. What is the best diagnosis for this child?

(a) Chickenpox
(b) Erythema infectiosum
(c) Measles

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a) Seeding of body cavities
b) Hemotogenous spread
c) Lymphatic spread
d) Direct extension
e) Local invasion

30. Which of the following statement regarding the biochemical test for Klebsiella is incorrect?

a) E.Coli is indole positive
b) E.Coli is motile
c) Klebsiella is citrate positive
d) Klebsiella is motile & indole positive
e) Klebsiella is urease positive

31. Which of the following is not a common characteristic of family enterobacteriaecae?

a) All the members are Gram-ve Rods
b) All are Non-spore forming
c) All are Nitrate reducers
d) All are oxidase +ve
e) All are lactose fermenters

32. A 10 year old boy presented with high grade fever and swollen lymph nodes on left side. His mother says that he brought a dead rat home, a few days ago. Which of the following is the most probable causative agent?

a) Brucella
b) Yersinia pestis
c) Klebsiella
d) Pseudomonas
e) E.Coli

33. Your patient is a 2 week old infant who was well until 2 days ago, when she stopped feeding and became irritable. She now has a fever to 38%C, developed a petechial rash all over her body, and is very difficult to arous. In the emergency room, a blood culture and a spinal tap were done. Gram stain of the spinal fluid showed gram positive cocci in chains. Culture of the spinal fluid on blood agar revealed β-hemolytic colonies that grew in the presence of bacitracin and hydrolyzed hippurate. Which one of the following is the most likely causative organism?

a) Staphylococcus aureus
b) Streptococcus agalactiae
c) Streptococcus mutans
d) Streptococcus pneumonia
e) Streptococcus pyogenes

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34. The following group of Esch. Coli is the commonest cause of travelers' diarrhea:

a) ETEC
b) EPEC
c) VTEC
d) EIEC
e) EAEC

35. Which of the following statements regarding pulmonary emboli is incorrect?

a) Most pulmonary emboli are clinically silent
b) Sudden death can result from obstruction of main pulmonary trunck.
c) Most cases are derived from superficial veins of the legs and periprostatic veins
d) Pulmonary infarction can occur in patients who have congestive heart failure
e) Paradoxical emboli may occur in patients with atrial septal defect.

C

36. Reduced plasma oncotic pressure is the most important mechanism of edema in:

a) Congestive heart failure
b) Edema of leg affected by venous thorombosis
c) Edema of the arm in breast cancer patients
d) Nephrotic syndrome
e) Brain trauma

D

37. A male baby is born at 39 weeks gestation with a petechial rash, low birth weight, hepatosplenomegaly and bilateral cataracts. This is thought to be due to an infect ion acquired while the baby was still in utero. Select the condition which is most likely to cause this clinical presentation.

a) Cytomegalovirus
b) Rubella virus
c) Toxoplasma gondii
d) Treponema pallidum
e) Group B streptococcus

38. A 12 year old girl begins to limp while playing soccer. She has pain in her right leg and upper right thigh. Her temp. is 102F. X-Ray of the femur reveals that the periosteum is eroded. Assuming, this case is managed as an infectious disease, what of the following is the most likely causative organism?

a) Listeria monocytogenes
b) Salmonella enteritidis
c) Staphylococcus aureus
d) Staphylococcus saprophyticus
e) Streptococcus pneumonia

C

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...us necrosis
...gulation disorder
...emosiderosis (d)
e) Caseation (e)

(a) - Neoplasia
(b) - Gangrenous necro
(c) - Coagulation disor

7. A 56 year old female has smoked 2 packs of cigarettes per day for the past 35 years. She has chronic cough, but recently has noted sputum streaked with blood. Bronchoscopy with biopsy performed. The biopsy reveals bronchial epithelium with squamous metaplasia. This most stro suggests that:

a) This is a physiologic process of aging
b) This process is irreversible, even if she stops smoking
c) She has metastases to lung from a primary somewhere else
d) She has increased risk for pulmonary dysplasia leading to cancer
e) A pulmonary thromboembolus caused pulmonary infarction

8. Which of the following is an example of metastatic calcification:

a) Healing M. tuberculosis granuloma
b) Fatty metamorphosis of liver
c) Parathyroid adenoma with hyperparathyroidism
d) Viral hepatitis with apoptosis
e) Coronary atherosclerosis

9. A 22 year old man develops marked right lower quadrant abdominal pain over the past day. O physical examination there is rebound tenderness on palpation over the right lower quadrant. Laparoscopic surgery is performed, and the appendix is swollen, erythematous, and partly covere by a yellowish exudate. It is removed, and a microscopic section shows infiltration with numerous neutrophils. The pain experienced by this patient is predominantly the result of the formation of which of the following two chemical mediators?

a) Complement C3b and IgG
b) Interleukin –I and tumor necrosis factor
c) Histamine and serotonin
d) Prostaglandin and bradykinin
e) Leukotriene and HPETE

D

10. A 56 year old man has had increasing dyspnea for 6 years. He has no cough or was inhaling silic dust for many years in his job. A chest X-ray now shows increased interstitial markings and parenchymal 1 to 3 cm nodules. His pulmonary manifestations are most likely to be caused by whic of the following inflammatory processes?

a) Neutrophilic infiltration with release of leukotrienes

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B

b) Foreing body reaction
c) Plasma cell production of immunoglobulin
d) Histamine release by mast cells
e) Release of growth factors by macrophages

11. A 40 year old woman has had a chronic cough with fever and weight loss for the past month. A chest radiograph reveals multiple nodules from 1 to 4cm in size, some of which demonstrate cavitation in the upper lobes. A sputum sample reveals the presence of acid fast bacilli. Which of the following cells is the most important in the development her lung lesions?

A

a) Macrophage
b) Fibroblast
c) Neutrophil
d) Mast cell
e) Platelet

12. A 37 year old man has had nausea and vomiting for 5 weeks. He experienced an episode of hematemesis yesterday. On physical examination he has no abnormal GI endoscopy is performed and there is a 1.5cm diameter lesion in the gastric antrum which appears to be an area with loss of the epithelial surface. These findings are most typical for which of the following pathologic process?

E

a) Abscess
b) Serositis
c) Granuloma
d) Gangrene
e) Ulcer

13. Which of the following is not correct regarding acute inflammation?

D

a) It may triggered by histamine
b) It is a rapid response specific to the nature of the injury
c) It leads to the formation of an exudate compOosed of fluid, fibrin and eosinophils.
d) It always heals by resolution
e) None of the above

14. Of the following chemical agents or materials, which is known to cause angiosarcoma of the liver?

D

a) Asbestos
b) Cyclophosphamide
c) Aniline dyes
d) Vinyl chloride
e) Nitrosamine

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THE SUPERIOR COLLEGE, LAHORE

PATHOLOGY

(MCQ's)

Time Allowed: 1 hour

Total Marks: 60

Instructions

1. All MCQ's are to be attempted on the paper and returned to the invigilator within 1 hour after you have received the question paper.
2. Any cuttings or overwriting in answering the objective part will not be accepted and no marks will be given even if the answer is correct.
3. Write your Roll No. only on the perforated portion of the title page.
4. Do not write your name or disclose your identity in anyway.

1. A 48 year old male with a history of chronic alcoholism who is continuing to perform adequately on the job will most often have which of the following findings in liver:
   A. Cholestasis
   B. Steatosis
   C. Hemochromatosis
   D. Hypertrophy of smooth endoplasmic reticulum
   E. Coagulative necrosis

2. While in a borne improvement center ware hours buying paint a 35 year old male hears "look out below" and is then s the leg by a falling pallet rack. The yellow brown color of the bruise to his thigh a couple of weeks after injury is d accumulation of:
   A. Lipofuscin brownish yellow
   B. Bilirubin
   C. Melanin brown - black
   D. Haemosiderin golden-yellow to brown
   E. Glycogen

3. . The presence of goblet cells with villi formation at gastroesophhageal junction is an example of:
   A. Dysplasia
   B. Aplasia
   C. Anaplasia
   D. Hyperplasia
   E. Metaplasia

4. . Features of hypoxic cell injury include all of the following EXCEPT:
   A. Cell swelling
   B. Lack of ATP generation
   C. Mitochondrial calcium deposition
   D. Lactic acidosis
   E. Fast receptors

5. Karyorrhexis refers to :
   A. Disintegration of the cell cytoplasm
   B. Cell membrane lysis
   C. Disintegration of the cell nucleus
   D. Mitochondrial swelling and lysis
   E. Oxygen toxicity

6. A below the knee amputation specimen from a 55 year old male with diabetes mellitus shows extensive black disc of a skin and soft tissue of the foot. This process is characterized as:

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5. An episode of marked chest pain lasting 4 hours brings a 53-year-old man to the emergency room. He is found to have an elevated serum creatine kinase. An angiogram reveals a complete blockage of the left circumflex artery 2 cm from its origin. Which of the following substances would you most expect to be elaborated around the region of tissue damage in the next 3 days as an initial response to promote healing?
   a) Histamine
   b) Immunoglobin G
   c) Complement component C3b
   d) Leukotriene B4
   e) Vascular endothelial growth factor

6. A 94-year-old woman has developed a fever and cough over the past 2 days. *Staphylococcus aureus* is cultured from her sputum. She receives a course of antibiotic therapy. Two weeks later she no longer has a productive cough, but she still has a fever. A chest radiograph reveals a 3 cm rounded density in the right lower lobe whose liquefied contents form a central air-fluid level. There are no surrounding infiltrates. Which of the following is the best description for this outcome of her pneumonia?
   a) Hypertrophic scar
   b) Abscess formation
   c) Bronchogenic carcinoma
   d) Chronic inflammation
   e) Granulomatous cavitation

7. An inflammatory process that has continued for 3 months includes the transformation of tissue macrophages to epithelioid cells. There are also lymphocytes present. Over time, fibroblasts lay down collagen as the focus of inflammation heals. These events are most likely to occur as an inflammatory response to which of the following infectious agents?
   a) *Mycobacterium tuberculosis*
   b) *Pseudomonas aeruginosa*
   c) Cytomegalovirus
   d) *Giardia lamblia*
   e) *Treponema pallidum*

8. Which of the events in acute inflammation comes fourth
   a) Transient vasoconstriction
   b) Vasodilatation
   c) Margination
   d) Adhesion
   e) Emigration

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AzraNaheed Medical College, Lahore

Pathology Department 3rd Year MBBS (MCQS)

Total Marks: 15 Time: 15 Minutes

1. A 40-year-old woman had laparoscopic surgery 3 months ago. Now she has a small 0.5 cm nodule beneath the skin at the incision site that was sutured. Which of the following cell types is most likely to be most characteristic of the inflammatory response in this situation?
   a) Mast Cell
   b) Eosinophil
   c) Giant Cell
   d) Neutrophil
   e) Plasma Cell
2. A 56-year-old man has had increasing dyspnea for 6 years. He has no cough or fever. He had chronic exposure to inhalation of silica dust for many years in his job. A chest x-ray now shows increased interstitial markings and parenchymal 1 to 3 cm solid nodules. His pulmonary problems are most likely to be mediated through which of the following inflammatory processes?
   a) Neutrophilic infiltrates producing leukotrienes
   b) Foreign body giant cell formation
   c) Plasma cell synthesis of immunoglobulins
   d) Mast cell histamine release
   e) Macrophage elaboration of cytokines
3. A 43-year-old woman has had a chronic cough with fever and weight loss for the past month. A chest radiograph reveals multiple nodules from 1 to 4 cm in size, some of which demonstrate cavitation in the upper lobes. A sputum sample reveals the presence of acid fast bacilli. Which of the following cells is the most important in the development her lung lesions?
   a) Macrophage
   b) Fibroblast
   c) Neytrophil
   d) Mast cell
   e) Platelets
4. A preformed mediator of inflammation is:
   a) Prostaglandins
   b) Histamine
   c) Leukotriene
   d) Nitric oxide
   e) Platelet activating factor

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5. A 27 year old female gives birth to a healthy baby boy. When her lab tests arrive she is diagnosed as hepatitis B positive. What is the immunization strategy for the baby?

(a) Active immunization
(b) Active-passive immunization
(c) Hepatitis B immunoglobulin
(d) None of the above
(e) MMR vaccine

6. A blood donor society advises all its members to get tested for hepatitis. Studies suggest that most post transfusion cases of Hep B are due to donor being in window period. Which single serological marker can be used to identify such donors?

(a) HBsAg
(b) Anti-HBs
(c) Anti-HBc ← HbcAb (core antibody)
(d) HBcAg
(e) PCR

7. A 45 year old male wants to get his routine blood tests done. When the results arrive he is incidentally diagnosed as Hepatitis C positive. His further workup reveals mildly elevated LFTs and coarse liver architecture. If untreated, the most common clinical outcome would be

(a) Fulminant hepatitis
(b) Acute hepatitis
(c) Cirrhosis
(d) Complete recovery
(e) High grade fever

8. How can you prevent the spread of Dengue Fever

(a) Clearing stagnant water
(b) Wearing Face-Masks
(c) Do not have any physical contact from other people
(d) Covering your mouth when you cough or sneeze
(e) Using personal protective equipment

9. DNA covering material in a virus is called as

(a) Capsomere
(b) Capsid
(c) Nucleocapsid
(d) Envelope
(e) Glycoprotein

10. All of the following are general properties of virus except

(a) May contain both DNA and RNA
(b) Obligate intracellular parasite
(c) They do not have cellular organization
(d) Heat labile
(e) Not affected by antibiotics

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16. A woman was hiking in an isolated area, when a shunk appeared and bit her on the leg. She now presents to your emergency room about an hour after the bite. Which one of the following is the most appropriate thing to do?

(a) Give rabies vaccine and hyperimmune globulin immediately.
(b) Reassure her that rabies is not a problem because shunks do not carry rabies.
(c) Quarantine the animal for 10 days and only treat her if signs of rabies appear in the animal.
(d) Test the patient's serum for antibodies now and in 10 days to see if there is a rise in antibody titer before treating her.
(e) Give hyperimmune globulin.

17. Kuru was a fatal disease of certain New Guinea natives and was characterized by tremors and ataxia; Creutzfeldt–Jakob disease (CJD) is characterized by both ataxia and dementia . CJD has been accidentally transferred to others by contaminated growth hormone from human pituitary glands, corneal transplants, and contaminated surgical instruments. These diseases are thought to becaused by which of the following?

(a) Cell wall-deficient bacteria
(b) Environmental toxins
(c) Flagellates
(d) Prions
(e) Slow viruses

18. Two viral vaccines are expected to reduce the incidence of cancers. Which vaccines are these?

(a) Adenovirus and mumps virus vaccines
(b) HAV and poliovirus vaccines
(c) HPV 16/18 and hepatitis B vaccines
(d) Measles virus and rubella virus vaccines
(e) Rota virus and VZV vaccines

19. A group of healthcare workers from the United States staffing a clinic in Pakistan were working with children admitted with acute flaccid paralysis. The illness began with fever, nausea, vomiting, and severe headache followed by neck stiffness, muscle pain and weakness, and constipation. None of the workers became ill because they had been vaccinated against this disease. Which viral vaccine protected these workers?

(a) HAV
(b) Measles virus
(c) Poliovirus
(d) Rubella virus
(e) Yellow fever virus

20. A 6-month-old infant has had watery diarrhea for 5 days; he vomited a couple of times. The stools have no blood or pus. He is dehydrated. Two other toddlers who visited for a day are also sick. What is the most likely cause of this child's diarrhea?

(a) Enterovirus
(b) Norwalkvirus
(c) Rota virus
(d) *Salmonella enterica*
(e) *Staphylococcus aureus* Enterotoxin

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