

22. After the leukocytes leave the vasculature, the migration in tissues to the site of infection or injury is mediated by which of the following substances acting as a Chemotactic factor?
 a. Bradykinin b. Chemokines c. Histamine d. Prostaglandins e. Nitric oxide
23. While shaving one morning, 23 years old male nicks his upper lip with the razor. Within a second after this injury, blood loss from a small dermal arteriole is reduced through;
 a. Activated protein C b. Vasoconstriction c. Platelet aggregation d. Neutrophil chemotaxis e. Fibrin polymerization
24. Which one is the feature of acute inflammation?
 a. Tissue destruction b. Angiogenesis c. Infiltration with neutrophils d. Fibrosis
 e. Increased tissue concentration of lymphocytes
25. Important step in the activation of complement system is
 a. Formation of C5 convertase b. Formation of membrane attack complex c. Activation of C3 component
 d. Formation of C3b component e. Formation of C5b component
26. Important Arachidonic acid metabolites acting as chemical mediators of inflammation are
 a. Chemokines b. Cytokines c. Nitric oxide d. Prostaglandins e. Free radicals
27. Which one is the feature of inflammation?
 a. Hypertrophy b. Phagocytosis c. Hyperplasia d. Dysplasia e. Metaplasia
28. Acute phase reaction is the result of production of
 a. TNF b. IL1 c. Complement proteins d. IL1, TNF and IL6 e. Prostaglandins
29. Lipoxygenase pathway of Arachidonic acid metabolism produces
 a. Prostaglandin E2 b. Thromboxane A2 c. Lipoxins and leukotrienes d. Prostacyclin E2 e. Interleukins
30. Dystrophic calcification
 a. Occurs in normal tissues b. Is associated with hypercalcemia c. Is seen in vitamin D related disease
 d. Occurs in necrotic tissues e. Is the deposition of calcium and phosphates as well
31. 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
32. In acute inflammation which event occurs first
 a. Arteriolar dilatation b. Transient arteriolar constriction c. Oedema d. Leucocyte migration e. Blood flow stasis
33. A preformed mediator of inflammation is:
 a. Prostaglandin b. Histamine c. Leukotriene d. Nitric oxide e. Platelet activating factor
34. A 22-year-old man develops marked right lower quadrant abdominal pain over the past day. On 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 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 two 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
35. Which of the following bacteria is part of normal flora of oral cavity and also a frequent cause of dental caries:
 a. Actinomyces israelii b. Staphylococcus epidermidis c. Streptococcus mutans
 d. Streptococcus pneumoniae e. Streptococcus pyogenes
36. Gastritis, Peptic ulcer and Gastric Carcinoma is caused by:
 a. Campylobacter jejuni b. Staph aureus c. Helicobacter pylori d. Staph epidermidis e. Streptococcus viridians
37. An artery is occluded by a blood clot causing ischemic changes due to decreased perfusion. Which of the following is a finding of irreversible cell injury?
 a. Cellular swelling & blebs b. Clumping of nuclear chromatin c. Detachment of ribosomes
 d. Decreased protein synthesis e. Depleted ATP with necrosis
38. Within minutes following a bee sting, a 37-year-old man develops marked respiratory stridor with dyspnea and wheezing. He also develops swelling and erythema seen in his arms and legs. An injection of epinephrine helps to reverse these events and he recovers within minutes. Which of the following chemical mediators is most important in the pathogenesis of this man's condition?
 a. Bradykinin b. Complement C5a c. Nitric oxide d. Tumor necrosis factor e. Histamine
39. Criminal responsibility with plea of insanity comes under:
 a. Section 82PPC b. Section 83PPC c. Section 84PPC d. Section 85PPC e. Section 44 PPC
40. All of the following are correct about dying declaration except:
 a. Injured person should be compos mentis b. Is the other name of valid will c. Is valid even if the patient survives
 d. Leading questions are not allowed e. Taken from person whose death is imminent?
41. A dead body of 14 years student was brought for autopsy that was throated by another student, on external examination there was crescent abrasion, for internal examination the doctor should prefer which incision.
 a. Vertical incision b. V- Shaped incisions c. I- Shaped incisions d. U- Shaped incisions e. X- Shaped incisions
42. A 40 years old cardiac patient suddenly fell down while crossing a road & then ran over by car. On autopsy there was large amount of blood in body cavities along with hemorrhagic infiltration of tissues at the site of traumatic lesions. The attending doctor declared that these are only Artifacts and the actual cause of death was MI not accident. Such type of artifact is called
 a. Therapeutic artifacts b. Agonal Artifacts c. Postmortem Artifacts d. Autopsy Artifacts e. Transportation Artifacts

PAPER CODE B

43. In legal sense the factor which matters about a substance to be considered as poison is:
 a. Dose of the substance b. Route of administration
 c. Form of the substance d. Taste of the substance e. Intention with which it is given
44. "Perjury" means:
 a. Giving false evidence willfully under oath b. False judgment given by the court c. Authentic evidence given in the court
 d. Evidence given in criminal litigation e. Evidence given on oath
45. The step of examination in the court which is considered as double edged weapon is:
 a. Examination in chief b. Cross examination c. Re-examination d. Court questions e. Volunteer statement
46. The mechanism of action of activated charcoal is:
 a. Absorbs poison b. Adsorbs poison c. Causes purgation d. Increase elimination of absorbed poison
 e. Makes protective layer on gastric mucosa
47. Obturator foramen of pelvic bone in female is:
 a. Large and hexagonal b. Large and oval c. Small and rectangular d. Small and rounded e. Small and triangular
48. The Orbit of male skull is:
 a. Hexagonal shaped b. Oval shaped c. Rectangular shaped d. Rounded in shape e. Square shaped
49. Chromosomal pattern in Klinefelter syndrome is:
 a. XX b. XY c. XXY d. XO e. XYY
50. Most important medico legal duty of a doctor in case of death from suspected poisoning is to
 a. Preserve the samples b. Record the detailed history c. Inform the magistrate
 d. Withhold issuing of death Certificate e. Estimate time since death
51. Substances which oxidize poisons & then render them inactive are:
 a. Mechanical Antidote b. Chelating Agent c. Chemical Antidotes d. Physiological Antidotes e. Universal Antidotes
52. The bone having maximum medico legal importance regarding ascertainment of sex is:
 a. Skull b. Pelvis c. Femur d. Sacrum e. Tibia
53. EDTA is used as a chelating agent in the treatment of poisoning due to:
 a. Oxalic acid b. Phenol c. Heavy metals d. Phosphorus e. Dhatura
54. The chest X-rays and sputum analysis for the early detection of tuberculosis constitute:
 a. Primary prevention b. Secondary prevention c. Tertiary prevention d. Medical treatment
 e. Primordial prevention
55. A 20 years old boy had a head injury in a motor bike accident. His attendant took him to a general practitioner first who advised them to take him to Lady Reading hospital immediately because Advanced Trauma Life Support is available there only. The level of health care provided by Lady Reading hospital in this case is:
 a. Primary level b. Secondary level c. Tertiary level
 d. First level referral facility e. RHC level referral facility
56. The WHO framework describes health systems in terms of service delivery, health workforce, health information systems, access to essential medicines, financing, and leadership/governance. The system that provides an organized method of collecting data & assimilating it to be used for health management & decision making mainly pertains to:
 a. Feedback b. Filtration of information c. Management of Information System d. Planning cycle
 e. System analysis
57. Rabies does not exist in England. Suppose by accident this disease is imported into the country and there was one case of this disease. Then this disease is classified as:
 a. Endemic of disease b. Exotic disease c. Hyper endemic disease d. Pandemic disease e. Sporadic disease
58. A high frequency of nosocomial infection or hospital acquired infection is an evidence of poor quality of health service delivery in a hospital. The most common cause of hospital acquired infection is:
 a. Contaminated food b. Contaminated hands of healthcare workers c. Wrong prescriptions by the doctors
 d. Vertical transmission e. Contaminated water
59. A child is born with cataract, cardiac malformation and deafness. The pediatrician advised serological testing to find the cause of these congenital malformations. This immunoglobulin that most probably will be detected is:
 a. IgA toxoplasmosis antibodies b. IgM toxoplasmosis antibodies c. IgG measles antibodies
 d. IgM measles antibodies e. IgM rubella antibodies
60. Rabies can be prevented in human beings by giving anti rabies vaccine even after post exposure situation i.e. immunization carried out after person is bitten by a rabid dog. Choose from the following situations that warrant contraindication for anti rabies vaccine in category 3 (high risk) post exposure cases
 a. Infants b. HIV/AIDS patients c. Patients who have renal transplant d. There is no contraindication
 e. Women in first trimester of pregnancy
61. The time interval between invasions by an infectious agent into the host and the appearance of the first sign and symptom disease in question. This time interval is known as:
 a. Communicable period b. Generation time c. Incubation period d. Infectious period
 e. Latent period
62. Illumination of Part to be examined is essential in ENT Practice. The usual source of illumination in ENT OPD is?
 a. Bull's eye lamp and concave head mirror b. LED OT top light c. Otoscope light
 d. Table lamp with convex head mirror e. Torch

PAPER CODE B

63. A patient presented with sore throat and fever. On examination tonsils were enlarged congested with beads of pus in the crypts. What is the precise diagnosis?
 a. Acute catarrhal tonsillitis
 b. Acute follicular tonsillitis
 c. Acute membranous tonsillitis
 d. Acute paracroupal tonsillitis
 e. Vincent's angina
64. A child presented with recurrent episodes of acute pharyngitis with pain and swelling of multiple joints of hand. What is the most likely organism responsible?
 a. Beta hemolytic streptococci
 b. H-influenzae
 c. Moraxella catarrhalis
 d. Pharyngeal Diphtheria
 e. Staph aureus
65. A 24-year-old patient came to ENT OPD with complaints of nasal obstruction, facial pain and post-nasal drip for the last 10 days. On examination there is deviation of nasal septum to the right and enlarged inferior turbinate (EIT) on the left. Also discharge is found on the floor of the nose. Investigations suggest sinusitis. What is the possible cause of this condition?
 a. Immune suppression
 b. Drug-induced
 c. Deviated Nasal Septum & EIT
 d. Trauma to the nose
 e. Tuberculosis of nose
66. A young boy was hit by a cricket ball. After a year he develops temporal loss of visual field. On examination he is diagnosed to be having nasal retinal detachment. Who will be the appropriate person to deal with this case?
 a. Paediatric ophthalmologist
 b. Orbital Surgeon
 c. Vitreoretinal Surgeon
 d. Oculoplastic surgeon
 e. General ophthalmologist with experience in anterior segment surgeries
67. A mother brings her 2-month-old male infant to eye OPD complaining of constant watering from his left eye since birth. He is also having sticky eye and conjunctivitis. What is the probable diagnosis?
 a. Ophthalmia neonatorum
 b. Congenital NLD Obstruction
 c. Bacterial Conjunctivitis
 d. Allergic conjunctivitis
 e. Acute dacryocystitis
68. A 6-year-old male child is brought to the outdoor with complaints of decrease of vision while studying from a whiteboard in school. Parents also noticed that the child stands very close to the television while watching cartoons. You perform retinoscopy and there is streak moving in opposite directions. What is the most likely diagnosis?
 a. Astigmatism
 b. Emmetropia
 c. Hyperopia
 d. Myopia
 e. Strabismus
69. A 10-year-old boy is brought to the outdoor by his parents with complaints of painful red eyes, sticky eye lashes and dandruff like material on his eyelid margins. On examination his eyelid margins are red, inflamed and tender, and greasy material is present on the eyelashes base as well as whitish dandruff like material. What is the most likely diagnosis?
 a. Blepharitis
 b. Conjunctivitis
 c. Dacryocystitis
 d. Keratitis
 e. Meibomianitis
70. A 45-year-old female with watering of eye and recurrent episodes of conjunctivitis in the left eye for 1 year. There is purulent discharge and regurgitation test is positive.
 a. Chronic dacryocystitis
 b. Acute dacryocystitis
 c. Acute bacterial conjunctivitis
 d. Lacrimal sac abscess
 e. Styte
71. How to judge the depth of any research?
 a. By research title
 b. By research duration
 c. By research objectives
 d. By total expenditure on research
 e. Self-actualization
72. _____ is the set of forces that energize, direct, and sustain behavior.
 a. Motivation
 b. Expectancy
 c. Socialization
 d. Empowerment
 e. Self-actualization
73. Which one is not a component of professional identity formation?
 a. Assess your skills
 b. Package your skills
 c. Avoid toxic workplace behaviours
 d. Behave according to the patient financial status
 e. Be purposeful in your networking
74. Miss Sakina, 30-year-old from Darabani, has a history of fever for the last 02 weeks. She has a low-grade fever (T. max 100°F). She also complains of headaches, fatigue, and is unremarkable. Investigation: CBC 10mg/dl, TLC is 4000, PLT: 160000 and MP: Negative. What is the most useful from following list for her diagnosis of her condition?
 a. Typhoid
 b. ECR
 c. CRP
 d. Blood cultures & sensitivity
 e. Bone Marrow examination
75. Which of the following is considered a clean surgery?
 a. Inguinal hernia repair
 b. Appendectomy
 c. Cholecystectomy
 d. Meckle's Diverticulectomy
 e. None of the above
76. A 20-year-old college student presented to the emergency department with a one-day history of pain in the abdomen. He explains that the pain was initially in the periumbilical region and is now localized to the right iliac fossa. He felt nauseated and has anorexia. The patient denies any urinary symptoms. On the basis of this history, what is your most probable diagnosis?
 a. Acute Appendicitis
 b. Acute Cholecystitis
 c. Ureteric Colic
 d. Urinary tract infection
 e. Mesenteric lymphadenitis
77. A 48-year-old para 6 has come to OPD with recurrent vulvovaginitis. On examination she has a curdy white discharge with soreness of the external genitalia. She is known to be diabetic with poor compliance with medication. What is the most probable cause of her recurrent vulvovaginitis?
 a. Bacterial vaginosis
 b. Candida albicans
 c. Herpes zoster
 d. Herpes simplex
 e. Trichomonas vaginalis
78. The rash of measles is
 a. Urticarial
 b. Pustular
 c. Maculopapular
 d. Maculovesicular
 e. Vasculitic
79. Animal studies are done to determine the various pharmacological parameters before the clinical trials in humans. A drug 'M' is injected intravenously into a laboratory animal. It is noted to have high serum protein binding. Which of the following will be the most likely increased in clinical application of this drug in humans?
 a. Drug interaction with other drugs
 b. Distribution of the drug to tissue sites
 c. Renal excretion
 d. Liver metabolism
 e. Drug toxicity

PAPER CODE B

80. Signal transduction is essential for the execution of the clinical effects of a given drug. Identify the cellular event when this will not occur and hence no positive clinical repose.
- Combination of a hormone with its receptors
 - Combination of a neurotransmitter with its receptors
 - Combination of an agonist with its receptors
 - Combination of both agonist & antagonist with its receptors
 - Combination of an antagonist with its receptor
81. The application of NDA is submitted to FDA before a specific clinical trial. Identify this timing of the application of NDA, as it is associated with consequent right of the patency to the Research Laboratory/manufacturer.
- Phase I clinical study
 - Phase II clinical study
 - Phase III clinical study
 - Phase IV clinical study
 - Phase 0 clinical study
82. A 19-year-old woman is brought to the hospital with severe asthmatic wheezing. You decide to use intravenous theophylline for treatment. The pharmacokinetics of theophylline includes the following average parameters: V_d 35L; CL 48 mL/minutes; half-life 8 hours. If an intravenous infusion of theophylline is started at a rate of 0.48 mg/minute, how long will it take to reach 93.75% of the final steady state concentration?
- Approximately 48 min
 - Approximately 7.4 h
 - Approximately 8 h
 - Approximately 24 h
 - Approximately 32 h
83. Various study tools are applied during experimental pharmacology. Compared to individual related information relating to a drug, which of the following provides information about the variation in response to a drug when applying the study to the population?
- Drug potency
 - Graded dose-response curve
 - Maximal efficacy
 - Quantal dose-response curve
 - Therapeutic index
84. A drug which does not produce any action by itself but decreases the slope of the log dose-response curve and suppresses the maximal response to another drug is a
- Physiological antagonist
 - Competitive antagonist
 - Noncompetitive antagonist
 - Partial agonist
 - Chemical Antagonist
85. Which of the following therapeutic systems provides continuous, unattended, controlled drug input for a long period without gastrointestinal or hepatic drug inactivation prior to systemic circulation?
- Parenteral
 - Oral
 - Transdermal
 - Inhalational
 - Topical
86. An intravenous bolus dose of thiopental usually leads to loss of consciousness within 10-15 sec. If no further drugs are administered, the patient will regain consciousness in just a few minutes. This is because thiopental is
- A good substrate for renal tubular secretion
 - Exhaled rapidly
 - Rapidly metabolized by hepatic enzymes
 - Redistributed from brain to other body tissues
 - Secreted in the bile
87. Jasim is a 55 KG, 38-year-old male smoker with acute exacerbation of COPD who is started on theophylline in the ward. A loading dose of 300 mg is administered over 30 minutes. Blood samples obtained 3 hours and 6 hours after the loading dose revealed serum concentrations of 12.0 mg/L and 8.1 mg/L, respectively. The elimination half-life of theophylline in this patient is:
- 0.53 hours
 - 5.33 hours
 - 3.50 hours
 - 6.00 hours
 - 8.03 hours
88. Which of the following terms best describes an antagonist that interacts directly with the agonist and not at all or only incidentally, with the receptor?
- Pharmacological antagonist
 - Partial agonist
 - Physiological antagonist
 - Chemical antagonist
 - Noncompetitive antagonist
89. After an intravenous bolus injection of lidocaine, the major factors determining the initial plasma concentrations are
- Dose & clearance
 - Dose & volume of distribution
 - Volume of distribution & clearance
 - Clearance & half-life
 - Half-life & dose
90. The effect of two drugs give together was higher than the sum of their individual effects. This type of drug-drug interaction is known as;
- Competitive antagonism
 - Inverse agonism
 - Neutral antagonism
 - Potentiation
 - Summation
91. A patient suffering from insomnia was taking a sedative since last 2 months. He presented to the OPD complaining that even though he is still taking the drug in the same dose as before it is not effective anymore. Which of the following is the most likely responsible for this condition?
- Anaphylaxis
 - Dependence
 - Resistance
 - Tachyphylaxis
 - Tolerance
92. A dosage of tablet phenytoin was given to a patient suffering from epilepsy. A constant amount of this drug is eliminated per unit time. Regarding the elimination of phenytoin;
- Elimination depends on the drug concentration
 - Elimination remains constant
 - Excretion increases with the increasing dose
 - Half-life decreases with increasing the dose
 - The half-life remains constant
93. A 59-year-old Asian man with atrial fibrillation presented to his physician complaining of red urine. The man had been receiving a standard dose of warfarin, which is an anticoagulant drug biotransformed by CYP2C9 isozyme. Which of the following was the most likely cause of the patient's disorder?
- Decreased metabolism of CYP2C9
 - Decreased renal excretion of warfarin
 - Genetic polymorphism of CYP2C
 - Increased CYP2C9 synthesis in a person of Asian origin
 - Increased protein binding of warfarin
94. A patient 50 years old female suffering from essential hypertension was prescribed Atenolol 50 mg twice a day. If the plasma concentration of this drug declines with "first-order kinetics", which of the following is correct?
- The drug has low bioavailability
 - The drug is largely metabolized in the liver after oral administration and elimination
 - The half-life is the same regardless of the plasma concentration
 - The rate of elimination is proportionate to the rate of administration at all times
 - There is only one metabolic path for drug disposition

Name: _____

Max. Marks: 120

Time Allowed: 120 min.

Note: • Attempt all questions. Select the best answer from given choices. Handover response sheet along with question paper after attempting.
• Use BLUE / BLACK ink only. Do not use RED Color. Filling of more than one option shall not be considered.
• Possession of mobile phone and other electronic accessories are strictly prohibited.

- Bacteria having tuft of flagella at one end are:
 - Amphitrichous
 - Atrichous
 - Lophotrichous
 - Monotrichous
 - Peritrichous
- The transfer of genes from one cell to another by bacteriophage is known as:
 - Recombination
 - Conjugation
 - Transduction
 - Transformation
 - Transversion
- Streptococcus pneumoniae is a major pathogen of humans causing community acquired diseases and meningitis worldwide. Which one of the following is the immunogen in the vaccine against Streptococcus pneumoniae?
 - Capsular polysaccharide
 - Endotoxin
 - Formaldehyde-killed organisms
 - Pilus protein
 - Toxoid
- A CT scan of a 43-year-old woman with a parathyroid adenoma and hyperparathyroidism reveals extensive calcium deposits in the lungs and kidney parenchyma. These radiologic findings are best explained by which of the following mechanisms of disease?
 - Arteriosclerosis
 - Dystrophic calcification
 - Granulomatous inflammation
 - Metastatic inflammation
 - Tumor embolism
- The only organelle in a human cell apart from the nucleus which has its own DNA is
 - Golgi apparatus
 - Mitochondria
 - Ribosome
 - Rough endoplasmic reticulum
 - Smooth endoplasmic reticulum
- A 22 year old man presents with abdominal pain and nausea. On examination, yellowing of the sclerae, skin and oral mucosa are noted. Which of the following is the likely cause of yellowish discoloration?
 - Bilirubin
 - Hemosiderin
 - Lead
 - Melanin
 - Silver
- A 55 year old immunocompromised man is found to have pulmonary tuberculosis. While examining biopsy of this patient, which type of necrosis will be found in the granulomatous lesions of TB?
 - Caseous
 - Coagulative
 - Enzymatic
 - Fibrinoid
 - Liquefactive
- Presence of pancreatic tissues in gastric mucosa is termed as:
 - Hamartoma
 - Metaplasia
 - Choriostoma
 - Neoplasia
 - Dysplasia
- Patient uses smokeless tobacco and develops submucosal fibrosis. it is:
 - Premalignant
 - Neoplastic
 - Hyperplasia
 - Metaplasia
 - Hypertrophy
- A 38-year-old man has a health screening examination. He has a routine chest x-ray that shows a 2 cm nodule in the right lower lobe. The nodule has focal calcifications. A wedge resection of the nodule is done. On microscopic examination the nodule shows caseous necrosis and calcification. Which of the following processes explains the appearance of the calcium deposition:
 - Dystrophic calcification
 - Apoptosis
 - Hypercalcemia
 - Metastatic calcification
 - Excessive ingestion of calcium
- Mutation in a codon leading to substitution of one amino acid with another is called:
 - Nonsense mutation
 - Miss sense mutation
 - Frameshift mutation
 - Point mutation
 - Translocation
- Endotoxin produced by gram negative bacteria is present in
 - Peptidoglycan
 - Lipopolysaccharide
 - Teichoic acid
 - Inner membrane
 - Outer membrane
- The difference between gram negative and gram-positive bacteria is shown to reside in the
 - Cell wall
 - Nucleus
 - Cell membrane
 - Mesosomes
 - Nuclear membrane
- Blood agar medium is
 - Enrichment medium
 - Enriched medium
 - Selective medium
 - Differential medium
 - Mackonkey medium
- Virulence in Gonococcus is due to
 - Pilli
 - Cell membrane
 - Cellular location
 - Cyclic enzymes
 - Toxin
- The process of leukocyte accumulation at the periphery of vessel is;
 - Adhesion
 - Rolling
 - Migration
 - Margination
 - Tumbling
- Diapedesis, the movement of leukocytes in the systemic vasculature occurs mainly in the;
 - Venules
 - Capillaries
 - Arterioles
 - Metarterioles
 - Veins
- Host proteins that coat microbes and target them for phagocytosis are;
 - Selectins
 - Cadherins
 - Opsonins
 - Integrins
 - Kinins
- Endothelial cell contraction leading to intracellular gaps in post capillary venules is the most common cause of.
 - Increased vascular permeability
 - Margination
 - Rolling
 - Stasis
 - Immigration
- Nitric oxide produced by endothelial cells is a;
 - Vasoconstrictor
 - Chemotactic agent
 - Potent vasodilator
 - Microbicidal agent
 - Opsonin
- Sarcoidosis is an example of;
 - Acute inflammation
 - Chronic inflammation
 - Granulomatous inflammation
 - Type I hypersensitivity reaction
 - Graft versus host disease