Jehad aur qudrati aafaat main muaalej ki zimmadari: Jihaad ka mafhoom, Aag mein jalane sey mumaaneat, Mashla ki mumaaneat, Qatal-e-aseer ki mumaaneat. Chapter – 12:

**Muaalej ki zimma darian:** Akhlaaq wa kirdar, sarkari shuubah main ghair qanooni wa hair akhlaaqi practice, Sarkaari haspatal main mulazemat, auqat-e-kaar ki pabandi, Ihsaas-e-zimmadari, mareez aur inkay lawaheqeen kay saath bartau, thashkhees wa ilaaj main laaparwahi na karna, Najayez tareeqey se tashheer, Aalaat wa adwiyat ki khareedari, Certificate ka ijra, Najji haspatal, Commission (Unlawful earning), Mehangi adwiyat tajweez karna. Ishtiharbaazi.

Chapter – 13: Muaalej aur Muashira: Ammar bil maroof aur nahe anil-munkar.

#### SECOND YEAR BDS SUBJECTS

- 1. General Pathology
- 2. General Pharmacology
- 3. Pre-Clinical Dentistry
- 4. Oral Pathology
- 5. Science of Dental Materials
- 6. Behavioral Science

### **CONTACT HOURS ALLOCATION**

#### SECOND PROFESSIONAL BDS

SUBJECTS	LECTURE	<u>S HOURS</u>	PRACTICA	L OURS
General Patholo	ogy 4	40	150	
General Pharma	acology	40	150	
Preclinical Denti	istry		360	
Oral Pathology		40	200	
Science of Dent	al Materilas	40	190	
Behavioral Scien	ncs 4	40		
Grand To	otal 2	200	1050	

# SYLLABII AND COURSE DETAILS FOR:

### **GENERAL PATHOLOGY:**

#### Introduction:

The branch of medicine dealing with the essential nature of disease, especially changes in body tissues and organs that cause a disease or caused by a disease. It explores the structural and functional manifestations of diseases.

Course Description & Objectives:	Suggested
	Lecture
	Hours
<ul> <li>Cell Injury: <ul> <li>a. Terms necrosis, ischemia, hypoxia, infarction and gangrene.</li> <li>b. Sequence of the ultrastructural and biochemical changes which occur in the cell in response to the following: <ul> <li>Ischemia</li> <li>Immunological injury-eg. Asthma / SLE</li> <li>/Anaphylactic reaction</li> <li>Physical agents: eg. Radiation</li> <li>Genetic defects- eg. Thalassemia /</li> <li>haemophilia</li> <li>Nutritional deficiency</li> <li>Infectious agents</li> <li>Viruses: eg. Hepatitis / Aids / HIV infections</li> <li>Fungi: eg. Staphylococcus</li> <li>Parasites: eg. Malaria</li> <li>Irreversible and reversible injury.</li> <li>Apoptosis and its significance.</li> <li>Necrosis and its types.</li> <li>Exogenous and endogenous pigment deposition</li> <li>Dystrophic and metastatic calcification along with clinical significance.</li> <li>Lipid</li> <li>Protein</li> <li>Carbobydrate</li> </ul> </li> </ul></li></ul>	5
INFLAMMATION AND MEDIATORS OF	5
INFLAMMATION	
<ul> <li>a) Describe the role of inflammation in the defense mechanisms of the body.</li> </ul>	

<ul> <li>a) Describe the vascular changes of acute inflammation and relate these to the morphological and tissue effects.</li> <li>b) Describe the process of chemotaxis, opsonization and phagocytosis.</li> <li>c) Describe the role of cellular components in inflammatory exudate.</li> <li>d) Differentiate between exudate and transudate.</li> <li>e) List the important chemical mediators of inflammation</li> <li>f) Describe the role of products of Archidonic Acid metabolism.</li> <li>g) Discuss the role of products of Archidonic acid metabolism in inflammation.</li> <li>h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>j) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>j) Describe the systemic of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the statogenesis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the differences between repair and regeneration.</li> <li>Describe the differences between repair and regeneration.</li> <li>Describe the differences between repair and regeneration.</li> <li>Describe the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>			
acute       inflammation       and relate         these to the morphological and       tissue effects.         b)       Describe       the process of         chemotaxis, opsonization       and         phagocytosis.       c)       Describe the role of cellular         components       in       inflammatory         exudate.       d)       Differentiate between exudate and         transudate.       e)       List       the important chemical         mediators of inflammation       f)       Describe       the pathway of         Archidonic Acid metabolism.       g)       Discuss the role of products of         Archidonic acid metabolism in       inflammation.         h)       Describe the mechanism for         development of fever, with       reference to exogenous and         endogenous pyrogens.       i)       Describe chronic inflammation         including granulomas.       j)       Describe the systemic effects of         acute and chronic inflammation and their possible outcomes.       i)       Describe the signification of ESR.         m)       Give two example of induced hypothermia in medicine.       n)       Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.         o)       Describe the differences between repair and regeneration	a)	Describe the vascular changes of	
<ul> <li>these to the morphological and tissue effects.</li> <li>b) Describe the process of chemotaxis, opsonization and phagocytosis.</li> <li>c) Describe the role of cellular components in inflammatory exudate.</li> <li>d) Differentiate between exudate and transudate.</li> <li>e) List the important chemical mediators of inflammation</li> <li>f) Describe the pathway of Archidonic Acid metabolism.</li> <li>g) Discuss the role of products of Archidonic acid metabolism in inflammation.</li> <li>h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the systemic effects of acute and chronic fullamention and their possible outcomes.</li> <li>j) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the differences between repair and regeneration.</li> <li>Describe the differences between repair and regeneration.</li> <li>Describe the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		acute inflammation and relate	
<ul> <li>tissue effects.</li> <li>b) Describe the process of chemotaxis, opsonization and phagocytosis.</li> <li>c) Describe the role of cellular components in inflammatory exudate.</li> <li>d) Differentiate between exudate and transudate.</li> <li>e) List the important chemical mediators of inflammation</li> <li>f) Describe the pathway of Archidonic Acid metabolism.</li> <li>g) Discuss the role of products of Archidonic acid metabolism in inflammation.</li> <li>h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe the mystemic effects of acute and chronic inflammation including granulomas.</li> <li>j) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>j) Describe the systemic effects of Gout.</li> <li>o) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>j) Describe the systemic of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the differences between repair and regeneration.</li> <li>Describe the differences between repair and regeneration.</li> <li>Describe the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		these to the morphological and	
<ul> <li>b) Describe the process of chemotaxis, opsonization and phagocytosis.</li> <li>c) Describe the role of cellular components in inflammatory exudate.</li> <li>d) Differentiate between exudate and transudate.</li> <li>e) List the important chemical mediators of inflammation</li> <li>f) Describe the pathway of Archidonic Acid metabolism.</li> <li>g) Discuss the role of products of Archidonic acid metabolism in inflammation.</li> <li>h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the management of acute and chronic Gout.</li> <li>o) Describe the differences between repair and regeneration.</li> <li>Describe the differences between repair and regeneration.</li> <li>Describe the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		tissue effects.	
chemotaxis, opsonization and phagocytosis. c) Describe the role of cellular components in inflammatory exudate. d) Differentiate between exudate and transudate. e) List the important chemical mediators of inflammation f) Describe the pathway of Archidonic Acid metabolism. g) Discuss the role of products of Archidonic acid metabolism in inflammation. h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens. i) Describe granulomas. j) Describe granulomas. j) Describe the systemic effects of acute and chronic inflammation and their possible outcomes. l) Describe the signification of ESR. m) Give two example of induced hypothermia in medicine. n) Describe the management of acute and chronic Gout. <b>WOUND HEALING</b> a Describe the differences between repair and regeneration . Describe the differences between repair and regeneration . Discuss the factors that influence the inflammatory reparative response. Compare wound contraction with cicatrization. Describe the formation of granulation tissue.	b)	Describe the process of	
<ul> <li>phagocytosis.</li> <li>c) Describe the role of cellular components in inflammatory exudate.</li> <li>d) Differentiate between exudate and transudate.</li> <li>e) List the important chemical mediators of inflammation</li> <li>f) Describe the pathway of Archidonic Acid metabolism.</li> <li>g) Discuss the role of products of Archidonic acid metabolism in inflammation.</li> <li>h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe granuloma, its type and causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the management of acute and chronic Gout.</li> <li>o) Describe the differences between repair and regeneration .</li> <li>Describe the differences between repair and regeneration .</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		chemotaxis, opsonization and	
<ul> <li>c) Describe the role of cellular components in inflammatory exudate.</li> <li>d) Differentiate between exudate and transudate.</li> <li>e) List the important chemical mediators of inflammation</li> <li>f) Describe the pathway of Archidonic Acid metabolism.</li> <li>g) Discuss the role of products of Archidonic acid metabolism in inflammation.</li> <li>h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the differences between repair and regeneration.</li> <li>Describe the differences between repair and regeneration.</li> <li>Describe the differences between repair and regeneration.</li> <li>Describe the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		phagocytosis.	
components       in       inflammatory         exudate.       d)       Differentiate between exudate and transudate.         e)       List       the       important       chemical mediators of inflammation         f)       Describe       the       pathway       of Archidonic Acid metabolism.         g)       Discuss       the role of products of Archidonic Acid metabolism in inflammation.       n)       Describe       the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.       i)         i)       Describe       chronic inflammation including granulomas.       j)       Describe chronic inflammation and their possible outcomes.         i)       Describe the systemic effects of acute and chronic inflammation and their possible outcomes.       j)       Describe the signification of ESR.         m)       Give two example of induced hypothermia in medicine.       n)       Describe the pathogenosis, clinical features and lab. Diagnosis of Gout.       o)         o)       Describe the differences between repair and regeneration.       3         •       Describe the differences between repair and regeneration.       0         •       Describe the factors that influence the inflammatory reparative response.       compare wound contraction with cicatrization.         •       Describe the formation of granulation tissue.       dinuterent partice pa	c)	Describe the role of cellular	
exudate.         d) Differentiate between exudate and transudate.         e) List the important chemical mediators of inflammation         f) Describe the pathway of Archidonic Acid metabolism.         g) Discuss the role of products of Archidonic acid metabolism in inflammation.         h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.         i) Describe chronic inflammation including granulomas.         j) Describe granuloma, its type and causes.         k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.         j) Describe the signification of ESR.         m) Give two example of induced hypothermia in medicine.         n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.         o) Describe the differences between repair and regeneration .         e) Describe the differences between repair and regeneration .         m) Discuss the factors that influence the inflammatory reparative response.         c) Compare wound contraction with cicatrization.         e) Describe the formation of granulation tissue.		components in inflammatory	
<ul> <li>d) Differentiate between exudate and transudate.</li> <li>e) List the important chemical mediators of inflammation</li> <li>f) Describe the pathway of Archidonic Acid metabolism.</li> <li>g) Discuss the role of products of Archidonic acid metabolism in inflammation.</li> <li>h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogenosis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the differences between repair and regeneration .</li> <li>Describe the differences between repair and regeneration .</li> <li>Describe the differences between repair and regeneration .</li> <li>Describe the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		exudate.	
<ul> <li>transudate.</li> <li>e) List the important chemical mediators of inflammation</li> <li>f) Describe the pathway of Archidonic Acid metabolism.</li> <li>g) Discuss the role of products of Archidonic acid metabolism in inflammation.</li> <li>h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe granuloma, its type and causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the differences between repair and regeneration .</li> <li>Describe the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>	d)	Differentiate between exudate and	
<ul> <li>e) List the important chemical mediators of inflammation</li> <li>f) Describe the pathway of Archidonic Acid metabolism.</li> <li>g) Discuss the role of products of Archidonic acid metabolism in inflammation.</li> <li>h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe granuloma, its type and causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		transudate.	
<ul> <li>mediators of inflammation</li> <li>f) Describe the pathway of Archidonic Acid metabolism.</li> <li>g) Discuss the role of products of Archidonic acid metabolism in inflammation.</li> <li>h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe granuloma, its type and causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> </ul>	e)	List the important chemical	
<ul> <li>f) Describe the pathway of Archidonic Acid metabolism.</li> <li>g) Discuss the role of products of Archidonic acid metabolism in inflammation.</li> <li>h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe granuloma, its type and causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the differences between repair and regeneration .</li> <li>Describe the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		mediators of inflammation	
<ul> <li>Archidonic Acid metabolism.</li> <li>g) Discuss the role of products of Archidonic acid metabolism in inflammation.</li> <li>h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe granuloma, its type and causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the differences between repair and regeneration .</li> <li>Describe the differences between repair and regeneration .</li> <li>Describe the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>	f)	Describe the pathway of	
<ul> <li>g) Discuss the role of products of Archidonic acid metabolism in inflammation.</li> <li>h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe granuloma, its type and causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the differences between repair and regeneration .</li> <li>Describe the differences between repair and regeneration .</li> <li>Describe the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		Archidonic Acid metabolism.	
<ul> <li>Archidonic acid metabolism in inflammation.</li> <li>h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe granuloma, its type and causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>o) Describe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>	g)	Discuss the role of products of	
<ul> <li>inflammation.</li> <li>h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe granuloma, its type and causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>o) Describe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		Archidonic acid metabolism in	
<ul> <li>h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe granuloma, its type and causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>o) Describe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		inflammation.	
<ul> <li>development of fever, with reference to exogenous and endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe granuloma, its type and causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the differences between repair and regeneration .</li> <li>e) Describe the differences between repair and regeneration .</li> <li>m) Discuss the factors that influence the inflammatory reparative response.</li> <li>c) Compare wound contraction with cicatrization.</li> <li>pescribe the formation of granulation tissue.</li> </ul>	h)	Describe the mechanism for	
<ul> <li>reference to exogenous and endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe granuloma, its type and causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>WOUND HEALING 3</li> <li>Coscribe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		development of fever, with	
<ul> <li>endogenous pyrogens.</li> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe granuloma, its type and causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>WOUND HEALING 3</li> <li>Coscribe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		reference to exogenous and	
<ul> <li>i) Describe chronic inflammation including granulomas.</li> <li>j) Describe granuloma, its type and causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>WOUND HEALING</li> <li>a Describe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		endogenous pyrogens.	
<ul> <li>including granulomas.</li> <li>j) Describe granuloma, its type and causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>o) Describe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>	i)	Describe chronic inflammation	
<ul> <li>j) Describe granuloma, its type and causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>WOUND HEALING 3</li> <li>Coscribe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		including granulomas.	
<ul> <li>causes.</li> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>l) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>WOUND HEALING 3</li> <li>Describe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>	j)	Describe granuloma, its type and	
<ul> <li>k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes.</li> <li>I) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>wound HEALING</li> <li>Bescribe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		causes.	
<ul> <li>acute and chronic inflammation and their possible outcomes.</li> <li>I) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>o) Describe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>	K)	Describe the systemic effects of	
<ul> <li>and their possible outcomes.</li> <li>I) Describe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>WOUND HEALING 3</li> <li>Describe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		acute and chronic inflammation	
<ul> <li>bescribe the signification of ESR.</li> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>Obescribe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>	N	and their possible outcomes.	
<ul> <li>m) Give two example of induced hypothermia in medicine.</li> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>WOUND HEALING 3</li> <li>e Describe the differences between repair and regeneration .</li> <li>e Describe wound healing by first and second intention.</li> <li>e Discuss the factors that influence the inflammatory reparative response.</li> <li>e Compare wound contraction with cicatrization.</li> <li>e Describe the formation of granulation tissue.</li> </ul>	I)	Describe the signification of ESR.	
<ul> <li>n) Describe the pathogencsis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>WOUND HEALING 3</li> <li>Describe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>	m)	Give two example of induced	
<ul> <li>n) Describe the pathogenesis, clinical features and lab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>WOUND HEALING 3</li> <li>Oescribe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>	-	nypolnermia in medicine.	
<ul> <li>ineatures and fab. Diagnosis of Gout.</li> <li>o) Describe the management of acute and chronic Gout.</li> <li>WOUND HEALING 3</li> <li>Oescribe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>	n)	beschibe the pathogenesis, clinical	
<ul> <li>o) Describe the management of acute and chronic Gout.</li> <li>WOUND HEALING 3</li> <li>Describe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		Cout	
<ul> <li>b) Describe the management of acute and chronic Gout.</li> <li>WOUND HEALING 3</li> <li>Describe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>	2)	Goul. Describe the management of acute	
WOUND HEALING       3         • Describe the differences between repair and regeneration .       5         • Describe wound healing by first and second intention.       6         • Discuss the factors that influence the inflammatory reparative response.       6         • Compare wound contraction with cicatrization.       6         • Describe the formation of granulation tissue.       6	0)	and chronic Gout	
WOUND HEALING       3         • Describe the differences between repair and regeneration .       •         • Describe wound healing by first and second intention.       •         • Discuss the factors that influence the inflammatory reparative response.       •         • Compare wound contraction with cicatrization.       •         • Describe the formation of granulation tissue.       •			
<ul> <li>WOUND HEALING 3</li> <li>Describe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>			
<ul> <li>Describe the differences between repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>	WOUND	HEALING	3
<ul> <li>repair and regeneration .</li> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>	•	Describe the differences between	
<ul> <li>Describe wound healing by first and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		repair and regeneration .	
<ul> <li>and second intention.</li> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>	•	Describe wound healing by first	
<ul> <li>Discuss the factors that influence the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		and second intention.	
<ul> <li>the inflammatory reparative response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>	•	Discuss the factors that influence	
<ul> <li>response.</li> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		the inflammatory reparative	
<ul> <li>Compare wound contraction with cicatrization.</li> <li>Describe the formation of granulation tissue.</li> </ul>		response.	
<ul><li>cicatrization.</li><li>Describe the formation of granulation tissue.</li></ul>	•	Compare wound contraction with	
Describe the formation of granulation tissue.		cicatrization.	
granulation tissue.	•	Describe the formation of	
		granulation tissue.	

	•	Describe the complications of wound healing.	
DISOF	RD	ERS OF CIRCULATION	8
	a)	THROMBO-EMBOLIC	
	,	DISORDERS AND THEIR	
		<ol> <li>Explain the pathogenesis of</li> <li>Describe the possible consequences of thrombosis.</li> </ol>	
	b)	DISORDERS OF THE	
		CIRCULATION AND SHOCK	
		1. Define edema, ascites,	
		hydrothorax and anasarca.	
		of edema with special	
		emphasis on CHF.	
		four major types of shock	
		(Hypovolemic, cardiogenic,	
		vasovagal and septic) and list	
		4. Describe the compensatory	
		mechanisms involved in shock.	
MICR	OB	IOLOGY	8
1.	De	escribe the defense mechanisms of	
	the	e	
2.	De De	escribe the microbial mechanisms of	
	in	vasion and virulence.	
3.	Di	fferentiate between sterilization and	
4.	De	escribe methods of disinfection and	
	ste	erilization.	
5.	De to	escribe the principles of aseptic	
6.	De	escribe universal precautions for	
	inf	ection control.	
1.	De fol	escribe the general principles of the	
	•	ELISA – Hepatitis (A.B.C.D.F.G)	
		Rubella, CMV and HIV	
	٠	Haemagglutination – TPHA	
	٠	Westem blot – HIV	

8	<ul> <li>ICT – Malaria</li> <li>Interpret: a) Culture reports b)</li> </ul>	
0.	Serological reports and c) microscopic	
	reports of gram stain and AFB stain.	
9.	Describe the principles of proper	
	specimens for laboratory	
	investigations with due precautions.	
10.	Describe the general characteristics	
	and taxonomy of Bacteria, Viruses	
11	and Fungi.	
' ' .	epidemic and pandemic diseases.	
	carriers, pathogens, opportunists,	
	commensals and colonizers.	
12.	List the microorganisms responsible	
	for infection of the body with especial	
13.	Describe pathogenesis, treatment,	
	epidemiology, prevention and control	
	of the following organisms.	
	Bacteria, Viruses, Fungus,     Brotozoa Holminthe:	
14	Describe principles of anti microbial	
action		
CENE		2
GENE	ETICS	3
<b>GENE</b>	ETICS genesis, Dysgencsis, Aplasia,	3
GENE 1. Ag Hy	ETICS genesis, Dysgencsis, Aplasia, /poplasia, Hyperplasia, Metaplasia, /splasia.Neoplasia, Anaplasia, Atrophy	3
GENE 1. Ay Hy Dy an	ETICS genesis, Dysgencsis, Aplasia, /poplasia, Hyperplasia, Metaplasia, /splasia,Neoplasia, Anaplasia, Atrophy id Hypertrophy.	3
GENE 1. Ag Hy Dy an 2. Ce	ETICS genesis, Dysgencsis, Aplasia, /poplasia, Hyperplasia, Metaplasia, /splasia,Neoplasia, Anaplasia, Atrophy id Hypertrophy. ell cycle and list cell types (stable, labile	3
GENE 1. Ay Hy Dy an 2. Ce , p	ETICS genesis, Dysgencsis, Aplasia, /poplasia, Hyperplasia, Metaplasia, /splasia,Neoplasia, Anaplasia, Atrophy id Hypertrophy. ell cycle and list cell types (stable, labile permanent)	3
GENE 1. Ay Hy Dy an 2. Ce , p 3. Me 4. Cli	ETICS genesis, Dysgencsis, Aplasia, /poplasia, Hyperplasia, Metaplasia, /splasia,Neoplasia, Anaplasia, Atrophy ad Hypertrophy. ell cycle and list cell types (stable, labile permanent) echanisms controlling cell growth. assification systems of tumors	3
GENE 1. Ay Hy Dy an 2. Ce , p 3. Me 4. Cla 5. Cr	genesis, Dysgencsis, Aplasia, /poplasia, Hyperplasia, Metaplasia, /splasia,Neoplasia, Anaplasia, Atrophy d Hypertrophy. ell cycle and list cell types (stable, labile permanent) echanisms controlling cell growth. assification systems of tumors. naracteristics of benign and malignant	3
GENE 1. Ay Hy Dy an 2. Ce , p 3. Me 4. Cla 5. Ch tur	<b>ETICS</b> genesis, Dysgencsis, Aplasia, /poplasia, Hyperplasia, Metaplasia, /splasia,Neoplasia, Anaplasia, Atrophy d Hypertrophy. ell cycle and list cell types (stable, labile permanent) echanisms controlling cell growth. assification systems of tumors. naracteristics of benign and malignant mors.	3
GENE 1. Ay Hy Dy an 2. Ce , p 3. Me 4. Cla 5. Cr tur 6. Gr	<b>ETICS</b> genesis, Dysgencsis, Aplasia, /poplasia, Hyperplasia, Metaplasia, /splasia,Neoplasia, Anaplasia, Atrophy ad Hypertrophy. ell cycle and list cell types (stable, labile permanent) echanisms controlling cell growth. assification systems of tumors. naracteristics of benign and malignant mors. rading and staging system of tumors.	3
GENE 1. Ay Hy Dy an 2. Ce , p 3. Me 4. Cla 5. Cr tur 6. Gr 7. Bio 8 Pr	<b>ETICS</b> genesis, Dysgencsis, Aplasia, /poplasia, Hyperplasia, Metaplasia, /splasia,Neoplasia, Anaplasia, Atrophy d Hypertrophy. ell cycle and list cell types (stable, labile bermanent) echanisms controlling cell growth. assification systems of tumors. naracteristics of benign and malignant mors. rading and staging system of tumors. ology of tumor growth.	3
GENE 1. Ay Hy Dy an 2. Ce , p 3. Me 4. Cla 5. Ch tur 6. Gr 7. Bio 8. Pr 9. Ho	<b>ETICS</b> genesis, Dysgencsis, Aplasia, /poplasia, Hyperplasia, Metaplasia, /splasia,Neoplasia, Anaplasia, Atrophy d Hypertrophy. ell cycle and list cell types (stable, labile permanent) echanisms controlling cell growth. assification systems of tumors. haracteristics of benign and malignant mors. rading and staging system of tumors. ology of tumor growth. ocess of carcinogenesis. ost defense against tumors.	3
GENE 1. Ay Hy Dy an 2. Ce , p 3. Me 4. Cla 5. Cr tur 6. Gr 7. Bio 8. Pr 9. Ho 10. Me	ETICS genesis, Dysgencsis, Aplasia, /poplasia, Hyperplasia, Metaplasia, /splasia,Neoplasia, Anaplasia, Atrophy d Hypertrophy. ell cycle and list cell types (stable, labile bermanent) echanisms controlling cell growth. assification systems of tumors. haracteristics of benign and malignant mors. rading and staging system of tumors. ology of tumor growth. ocess of carcinogenesis. ost defense against tumors. echanism of local and distant spread.	3
GENE 1. Ay Hy Dy an 2. Ce , p 3. Me 4. Cla 5. Cr tur 6. Gr 7. Bio 8. Pr 9. Ho 10. Me 11. Lo	genesis, Dysgencsis, Aplasia, ypoplasia, Hyperplasia, Metaplasia, ysplasia, Neoplasia, Anaplasia, Atrophy d Hypertrophy. ell cycle and list cell types (stable, labile bermanent) echanisms controlling cell growth. assification systems of tumors. haracteristics of benign and malignant mors. rading and staging system of tumors. ology of tumor growth. ocess of carcinogenesis. bit defense against tumors. echanism of local and distant spread. ocal and systemic effects of tumors.	3
GENE 1. Ay Hy Dy an 2. Ce , p 3. Me 4. Cla 5. Ch tur 6. Gr 7. Bio 8. Pr 9. Ho 10. Me 11. Lo 12. Tu	<b>ETICS</b> genesis, Dysgencsis, Aplasia, vpoplasia, Hyperplasia, Metaplasia, vsplasia, Neoplasia, Anaplasia, Atrophy d Hypertrophy. ell cycle and list cell types (stable, labile bermanent) echanisms controlling cell growth. assification systems of tumors. haracteristics of benign and malignant mors. rading and staging system of tumors. ology of tumor growth. ocess of carcinogenesis. ost defense against tumors. echanism of local and distant spread. ocal and systemic effects of tumors. imor markers used in the diagnosis and	3
GENE 1. Ay Hy Dy an 2. Ce , p 3. Me 4. Cla 5. Cr tur 6. Gr 7. Bio 8. Pr 9. Ho 10. Me 11. Lo 12. Tu ma 13. C	<b>ETICS</b> genesis, Dysgencsis, Aplasia, /poplasia, Hyperplasia, Metaplasia, /splasia,Neoplasia, Anaplasia, Atrophy de Hypertrophy. ell cycle and list cell types (stable, labile bermanent) echanisms controlling cell growth. assification systems of tumors. haracteristics of benign and malignant mors. rading and staging system of tumors. ology of tumor growth. ocess of carcinogenesis. ost defense against tumors. echanism of local and distant spread. ocal and systemic effects of tumors. imor markers used in the diagnosis and anagement of cancers. hemical. Physical agents and Viruses	3
GENE 1. Ay Hy Dy an 2. Ce , p 3. Me 4. Cla 5. Ch tur 6. Gr 7. Bio 8. Pr 9. Ho 10. Me 11. Lo 12. Tu ma 13. C	<b>ETICS</b> genesis, Dysgencsis, Aplasia, /poplasia, Hyperplasia, Metaplasia, /splasia,Neoplasia, Anaplasia, Atrophy d Hypertrophy. ell cycle and list cell types (stable, labile bermanent) echanisms controlling cell growth. assification systems of tumors. haracteristics of benign and malignant mors. rading and staging system of tumors. ology of tumor growth. ocess of carcinogenesis. ost defense against tumors. echanism of local and distant spread. ocal and systemic effects of tumors. imor markers used in the diagnosis and anagement of cancers. hemical, Physical agents and Viruses lated to human cancer.	3
GENE 1. Ay Hy Dy an 2. Ce , p 3. Me 4. Cla 5. Cr tur 6. Gr 7. Bio 8. Pr 9. Ho 10. Me 11. Lo 12. Tu ma 13. C rel 14. Ep	<b>ETICS</b> genesis, Dysgencsis, Aplasia, /poplasia, Hyperplasia, Metaplasia, /splasia, Neoplasia, Anaplasia, Atrophy d Hypertrophy. ell cycle and list cell types (stable, labile bermanent) echanisms controlling cell growth. assification systems of tumors. haracteristics of benign and malignant mors. rading and staging system of tumors. ology of tumor growth. ocess of carcinogenesis. ost defense against tumors. echanism of local and distant spread. ocal and systemic effects of tumors. imor markers used in the diagnosis and anagement of cancers. hemical, Physical agents and Viruses lated to human cancer. oidemiology of common cancers in	3
GENE 1. Ay Hy Dy an 2. Ce , p 3. Me 4. Cla 5. Ch tur 6. Gr 7. Bid 8. Pr 9. Ho 10. Me 11. Lo 12. Tu ma 13. C rel 14. Ep Pa	<b>ETICS</b> genesis, Dysgencsis, Aplasia, /poplasia, Hyperplasia, Metaplasia, /splasia,Neoplasia, Anaplasia, Atrophy of Hypertrophy. ell cycle and list cell types (stable, labile bermanent) echanisms controlling cell growth. assification systems of tumors. haracteristics of benign and malignant mors. rading and staging system of tumors. ology of tumor growth. ocess of carcinogenesis. ost defense against tumors. echanism of local and distant spread. ocal and systemic effects of tumors. imor markers used in the diagnosis and anagement of cancers. hemical, Physical agents and Viruses lated to human cancer. oidemiology of common cancers in akistan.	3

IMMUNOLOGY	8
Antigen, antibody, epitope, hapten and adhesion molecules. Innate and acquired immunity.	
Type I, type II, type III, and type IV hypersensitivity reactions.	
Classification of the immunodeficiency disorders.	
Autoimmunity.	

## SYLLABII AND COURSE DETAILS FOR:

### **GENERAL PHARMACOLOGY:**

#### Introduction:

It is the science that deals with the origin, nature, chemistry, effects, and uses of drugs. it includes pharmacognosy, pharmocokinetics, pharmacodynamics, pharmacotherapeutics and toxicology.

Course Description & Objectives:	Suggested
	Lecture
	Hours
Introduction to Concepts & Principles of	3
General Pharmacology:	
Definition of drug and drug nomenclature.	
Branches / Divisions of Pharmacology	
Sources of drugs	
Active principles of drug and Pharmacology	
Dosage forms and doses of drugs.	
Drug administration.	
Absorption of drugs and processes involved	
in drug absorption	
Factors modifying absorption of drugs.	
Transport of drugs across cell-membrane	
Bioavailability, its clinical significance and	
factors affecting bioavailability	
Drugs reservoirs, distribution and	
redistribution of drugs, plasma protein	
binding	
Pro-drug, Biotransformation of drugs,	
enzyme induction, enzyme inhibition and	
entero-hepatic circulation	
Plasma half-life of drugs, steady state	
concentration, its clinical importance and	
factors affecting it.	
Excretion of drugs.	
Mechanism of drug action.	
Dose response curves, structure-activity	
relationship.	
Factors modifying action and doses of drugs.	
Pharmacokinetics, pharmacodynamics and	