

**SUBJECT : INTELLECTUAL PROPERTY RIGHTS**

**SEM/YEAR : VI/III**

**UNIT I INTRODUCTION**

Introduction to IPRs, Basic concepts and need for Intellectual Property – Patents, Copyrights, Geographical Indications, IPR in India and Abroad – Genesis and Development – the way from WTO to WIPO –TRIPS, Nature of Intellectual Property, Industrial Property, technological Research, Inventions and Innovations – Important examples of IPR.

**PART-A**

Q.No	Questions	BT Level	Competence
1	<b>Express</b> the term IP.	BTL 2	Understand
2	<b>Analyze</b> the use of IPR.	BTL 4	Analyze
3	<b>Define</b> IPR and its types.	BTL 1	Remember
4	<b>List</b> the four types of intellectual property	BTL 1	Remember
5	<b>Discuss</b> are IPR issues.	BTL 2	Understand
6	<b>Interpret</b> why do we need to protect IPR?	BTL 2	Understand
7	<b>Differentiate</b> between intellectual property and copyright.	BTL 4	Analyze
8	<b>Give</b> the detail how do i protect my IP?	BTL 2	Understand
9	<b>What</b> is intellectual property ethics?	BTL 1	Remember
10	<b>Demonstrate</b> are the functions of WIPO.	BTL 3	Apply
11	<b>What</b> is the difference between commercial and industrial real estate?	BTL 6	Create
12	<b>Explain</b> industrial rights.	BTL 5	Evaluate
13	<b>Formulate</b> how intellectual property rights can be used in information technology?	BTL 6	Create
14	<b>State</b> industrial design protected.	BTL 1	Remember
15	<b>Show</b> the essentials and characteristics of an industrial design.	BTL 3	Apply
16	<b>Define</b> intellectual property in technology.	BTL 1	Remember
17	<b>What</b> is intellectual property provide at least three examples?	BTL 1	Remember
18	<b>Analyze</b> the full meaning of TRIPS.	BTL 4	Analyze
19	<b>Illustrate</b> when did trips come into force?	BTL 3	Apply
20	<b>Summarize</b> the purpose of trips agreement?	BTL 5	Evaluate

PART B			
1	<b>Explain</b> the types of intellectual property rights with illustrations(13)	BTL 5	Evaluate
2	<b>Describe</b> in detail basic concepts and need for intellectual property.(13)	BTL 1	Remember
3	<b>Explain</b> the types of intellectual property rights with illustrations.(13)		
4	<b>Explain</b> the procedure to select and evaluate trademarks with a case study(13)	BTL 1	Remember Understand Analyze
5	<b>Explain</b> the trading norms and functions of W.T.O. towards I.P.R.(13)	BTL 2	
6	<b>Explain</b> the trading norms and functions of W.T.O. towards I.P.R. (13)	BTL 4	
7	i) <b>Illustrate</b> in detail technological research .(6) ii) <b>Explain</b> the industrial property with example(7)	BTL 3	Apply
8	<b>Describe</b> the genesis and development in detail with suitable examples.(13)	BTL 2	Understand
9	i) <b>Formulate</b> and explain IPR in india and abroad and its limitations in detail. (5) ii) <b>Outline</b> the steps in nature of intellectual property. Give example.(8)	BTL 6	Create
10	<b>Illustrate</b> the way from WTO to WIPO in detail with example.(13)	BTL 3	Apply
11	<b>Describe</b> the following in detail i). New developments in trade mark law (7) ii) False advertising (6)	BTL 1	Remember
12	<b>Analyze</b> and elaborate the role of IPR. in protection against unfair competition. (13)	BTL 4	Analyze
13	<b>Explain</b> the significance of trade secrets in the industrial economy of India. (13)	BTL 4	Analyze
14	<b>Discuss</b> the norms and standards laid down by the World Trade Organization in respect of TRIPs related to 'Law of Copyright'(13)	BTL 2	Understand
PART C			
1	When a patent application is submitted, it is examined by the patent authorities. What kind of objections can be raised and how can they be rectified by the applicant? After the applicant has cleared all these objections, all rights are given to her except one right. Which right is not given and why? (15)	BTL 4	Analyze
2	i) Explain the nature and scope of protection of copyrights. (7) ii) How the work in digital media is protected under the copyright law measures? (8)	BTL 5	Evaluate
3	i)What is the meaning and importance of Intellectual Property Rights?(7) ii)Explain the classification of treaties relating to intellectual property rights.(8).	BTL 5	Evaluate
4	<b>Generalize your</b> view about Inventions and Innovations – Important examples of IPR. (15)	BTL 6	Create

UNIT II - REGISTRATION OF IPRs			
Meaning and practical aspects of registration of Copy Rights, Trademarks, Patents, Geographical Indications, Trade Secrets and Industrial Design registration in India and Abroad			
PART-A			
Q.No	Questions	BT Level	Competence
1	Show the characteristics of copyright.	BTL 3	Apply
2	Analyze an advantage to registering a copyright?.	BTL 4	Analyze
3	Examine the procedure for registration of copyright?	BTL 3	Apply
4	Define trademark	BTL 1	Remember
5	Define patents.	BTL 1	Remember
6	Discuss how long does it take to get a copyright registration?	BTL 2	Understand
7	Illustrate the patents. How long is a patent good for?	BTL 3	Apply
8	Classify what are the 3 types of patents?	BTL 4	Analyze
9	Give definition for geographical indications and Why do geographical indications need protection?	BTL 2	Understand
10	Generalize on what rights does a geographical indication provide?	BTL 6	Create
11	Tabulate the essentials and characteristics of an industrial design?	BTL 1	Remember
12	Formulate on what is a trade secret and how is it protected?	BTL 6	Create
13	Why are trade secrets important?	BTL 5	Evaluate
14	List out the India's geographical indication tagged products.	BTL 1	Remember
15	Differentiate on how does copyright differ from patent and trademark law.	BTL 2	Understand
16	What are the steps in the patent application process?	BTL 1	Remember
17	Summarize trademarks.	BTL 2	Understand
18	Point out the difference between copyright and geographical indication.	BTL 4	Analyze
19	Define trade secrets.	BTL 1	Remember
20	Explain practical aspects of registration of copy rights.	BTL 5	Evaluate
PART-B			
1	i)Discuss in detail about the practical aspects of registration of copy rights.(6) ii)Describe the various approaches in patent searching mechanism.(7)	BTL 2	Understand
2	Illustrate the following in IPR i) Copyright.(7) ii) Trademarks.(6)	BTL 3	Apply
3	Describe in detail about the trade names and business name and trademark use and compliance (13)	BTL 1	Remember
4	i)Generalize on the role of openness in research, discovery and innovation.(7) ii)How do patents stifle other innovative activity?.(6)	BTL 6	Create
5	i) Examine on what is the relationship between trademark application and radical innovation?(7) ii) Identify and explain What are the consequences of breaching the International Intellectual Copy right Law?(6)	BTL 1	Remember
6	With suitable example describe the following.	BTL 2	Understand

	(i) Copyright (3) (ii) Patents (3) (iii) Trademark (3)		
	(iv) Geographical Indications (4)		
7	i) <b>Explain</b> in detail about How the copyrights laws differ from intellectual property rights? ii) <b>Explain</b> in detail about Globalization of intellectual property? (5)	BTL 4	Analyze
8	i) <b>Define</b> patent and the patent application process. (8) ii) <b>Tabulate</b> the difference between copyright and trademark. (5)	BTL 1	Remember
9	<b>Describe</b> in detail about the trade secrets and industrial design registration in India and abroad (13).	BTL 1	Remember
10	i) <b>Discuss</b> about Copy Rights. (7) ii) <b>Discuss</b> about Trademarks. (6)	BTL 2	Understand
11	<b>Explain</b> the following in detail. i) Trade Secrets. (7) ii) trade secrets important. (6)	BTL 5	Evaluate
12	i) <b>Explain</b> in detail about Trade Secrets. (7) ii) Write notes on which law protects trade secrets? (6)	BTL 4	Analyze
13	<b>Summarize</b> the concept of Case Contributory Trademark Infringement. (13)	BTL 4	Analyze
14	<b>Analyze</b> the following with example i) Patents. (7) ii) Geographical Indications. (6)	BTL 3	Apply
<b>PART C</b>			
1	<b>Analyze</b> the some important steps to be considered while developing an IP strategy (15)	BTL 4	Analyze
2	<b>Explain</b> in detail about Practical IP Issues in Developing a Business Plan. (15)	BTL 5	Evaluate
3	Summarize the various approaches to importance of India as a target country for design registration. (15)	BTL 5	Evaluate
4	<b>Generalize</b> about Patents and give an outline about , Geographical Indications . (15)	BTL 6	Create

### UNIT III AGREEMENTS AND LEGISLATIONS

International Treaties and Conventions on IPRs, TRIPS Agreement, PCT Agreement, Patent Act of India, Patent Amendment Act, Design Act, Trademark Act, Geographical Indication Act.

#### PART-A

Q.No	Questions	BT Level	Competence
1	<b>Express</b> the term international treaties and conventions?	BTL 2	Understand
2	<b>How</b> to international intellectual property?	BTL 2	Understand
3	<b>Write</b> a TRIPS Agreement stand for?	BTL 1	Remember
4	<b>Define</b> India a member of TRIPS	BTL 1	Remember
5	<b>Discuss</b> about are the functions of TRIPS.	BTL 2	Understand
6	<b>Give</b> the Can you file a PCT application without fees?	BTL 2	Understand
7	<b>What</b> is a PCT number	BTL 1	Remember
8	<b>Assess</b> Do PCT applications expire.	BTL 5	Evaluate

9	<b>State</b> Who can file a PCT application?.	BTL 1	Remember
10	<b>Write</b> a Generalize note on Patent Act in India.	BTL 6	Create
11	<b>Classify</b> the What does Patent Act mean?	BTL 4	Analyze
12	<b>Illustrate</b> about Patent Amendment Act.	BTL 3	Apply
13	<b>Assess</b> on What are invention for the purpose of Patent Act 1970?.	BTL 5	Evaluate
14	<b>What</b> is the design ACT?	BTL 1	Remember
15	<b>Show</b> the design infringement.	BTL 3	Apply
16	<b>Explain</b> the term What is category of mark in trade	BTL 4	Analyze
17	<b>What</b> is Form TM A?	BTL 1	Remember
18	<b>Show</b> the protected geographical indication?	BTL 3	Apply
19	<b>Analyse</b> the provisions of the TRIPS Agreement.	BTL 4	Analyze
20	<b>Generalize</b> about geographical indication act	BTL6	Create
<b>PART-B</b>			
1	i) Discuss International Treaties and Conventions on IPRs. (6) ii) Explain in detail about the TRIPS Agreement.(7)	BTL 2	Understand
2	i) Give the PCT Agreement.(3) ii) Describe in detail about Patent Act of India.(10)	BTL 1	Remember
3	i) Describe Patent Amendment Act.(7) ii) List the format of Patent Act of India.(6)	BTL 1	Remember
4	Generalize on International Treaties and Conventions on IPRs with example. (13)	BTL 6	Create
5	i) <b>Explain</b> about the Geographical Indication Act with suitable example.(7) ii) <b>Discuss</b> functional PCT agreement with suitable example.(6)	BTL 1	Remember
6	i) Summarize on TRIPS agreement.(7) ii) <b>Discuss</b> about deign act.(6)	BTL 2	Understand
7	<b>Explain</b> briefly the following i) Geographical Indication Act (7) ii) TRIPS Agreement.(6)	BTL 4	Analyze
8	i) <b>Summarize</b> the Design Act.(7) ii) <b>Assess</b> on Patent Act of India.(6)	BTL 5	Evaluate
9	<b>Demonstrate</b> briefly about International Treaties and Conventions on IPRs.(13)	BTL 3	Apply
10	<b>Explain</b> the following in detail i) Criteria patent.(7) ii) Indian IPR Scenario.(6)	BTL 4	Analyze
11	<b>Discuss</b> various IP rights and marketing regulations with example.(13)	BTL 2	Understand
12	<b>Analyze</b> the IP management framework. Explain in detail.(13)	BTL 4	Analyze
13	<b>Describe</b> in detail about difference between Trademark Act and Geographical Indication Act. (13)	BTL 1	Remember
14	Write an example for TRIPS Agreement.(13)	BTL 3	Apply
<b>PART C</b>			

1	<b>Explain</b> the following in detail india's patent policy, india's patent policy in pre-trips period. <b>Analyze</b> the main features of the original indian patents act, 1970 and provisions of TRIPS	BTL 4	Analyze
2	<b>Write</b> an patent amendments in india after TRIPS agreement and the salient features of the patents act, 1970.(15)	BTL 5	Evaluate

3	(i) Explain in detail notes rights arising from trademark registration (8) (ii) Discuss in detail notes on removal of the trademark from the register (7)	BTL 5	Evaluate
4	(i) Write a detail notes on protecting geographical indications – a step in developing a geographical indication (10) (ii) Generalize on protecting geographical indications abroad(5)	BTL 6	Create

UNIT IV DIGITAL PRODUCTS AND LAW			
Digital Innovations and Developments as Knowledge Assets – IP Laws, Cyber Law and Digital Content Protection – Unfair Competition – Meaning and Relationship between Unfair Competition and IP Laws – Case Studies.			
PART-A			
Q.No	Questions	BT Level	Competence
1	<b>How</b> to use IP Laws?	BTL 2	Understand
2	<b>Illustrate</b> the invention in IPR.	BTL 3	Apply
3	<b>What</b> is the cyber law?	BTL 1	Remember
4	<b>Analyze</b> digital content protection.	BTL 4	Analyze
5	<b>Define</b> cyber law.	BTL 1	Remember
6	<b>Discuss</b> the meaning of IP in law.	BTL 1	Remember
7	<b>How</b> many cyber laws are there in India?	BTL 2	Understand

8	<b>Define</b> Cyber Law Act 2000.	BTL 1	Remember
9	<b>Differentiate</b> IP law and cyber law.	BTL 2	Understand
10	<b>Show</b> the law of cybercrime.	BTL 3	Apply
11	<b>Compare</b> the cyber law and digital content protection.	BTL 5	Evaluate
12	<b>What</b> the types of cyber law?	BTL 1	Remember
13	<b>Write</b> the advantages of cyber laws.	BTL 6	Create
14	<b>Discriminate</b> Developments as Knowledge Assets.	BTL 5	Evaluate
15	<b>Definitions</b> of “Unfair Competition” .	BTL 1	Remember
16	<b>Express</b> the Character of the Unfair Competition Law of Japan.	BTL 2	Understand
17	<b>Formulate</b> the unfair competition prevention act.	BTL 6	Create
18	<b>Categorize</b> the features of digital innovations.	BTL 4	Analyze
19	<b>Compare</b> Unfair Competition and IP laws	BTL 4	Analyze
20	<b>Demonstrate</b> the use of Unfair Competition.	BTL 3	Apply
<b>PART-B</b>			
1	i)What is IP laws? Write a detail notes Digital Innovations ?(7) ii) <b>How</b> to use unfair competition prevention act ?(6)	BTL 1	Remember
2	i) <b>Give</b> the Developments as Knowledge Assets.(7) ii) <b>Explain</b> cyber laws in detail.(6)	BTL 2	Understand
3	<b>Discuss</b> on digital content protection and Cyber Law.	BTL 2	Understand
4	<b>Describe</b> in detail about Relationship between Unfair Competition and IP Laws with suitable examples.(13)	BTL 1	Remember
5	<b>Illustrate</b> in detail about IP laws.(13)	BTL 3	Apply
6	i) <b>Formulate</b> the structure of IP licensing and Indian competition law (6) ii)Describe in detail about competition law with example.(7)	BTL 6	Create
7	i) <b>Analyze</b> the cybercrimes? Give examples.(7) ii) Explain in detail about on-line crime. (6)	BTL 4	Analyze
8	i) <b>Explain</b> in detail about the Digital Content Protection (7) ii) <b>Explain</b> cyber laws in detail.(6)	BTL 5	Evaluate
9	<b>Analyze</b> the significance of International Trade Mark Law? (13)	BTL 4	Analyze
10	<b>Describe</b> in detail about confidentiality agreement and how it can protect the Trade secrets?(13)	BTL 1	Remember
11	i) <b>Explain</b> the evolution of IP regime in India.(7) ii) What is copyright infringement? What are the remedies for it? (6)	BTL 4	Analyze
12	i) <b>Describe</b> the detail notes of “Unfair Competition” and General Clause.(6) ii) Discuss the Developments as Knowledge Assets.(7)	BTL 1	Remember

13	i)List the Cyber Law Act 2000. (3) ii)Illustrate in detail about digital content protection.(10)	BTL 3	Apply
14	i) Discuss the Semi Conductor Chip Protection Act. (6) ii) Discuss the Principles of Copyright Act.(7)	BTL 2	Understand
<b>PART C</b>			
1	(i)Write about the purpose of publications, pre grant and post grant oppositions of a patent application.(8) (ii)What are the remedies for the misuse of monopoly under the exclusive rights of a patentee?(7)	BTL 4	Analyze
2	(i)Define IT Act 2000 and explain its significance.(8) (ii)Briefly describe the unfair competition in India.(7)	BTL 5	Evaluate
3	What are the salient features of Information Technology Act?(8) Explain the compulsory licensing scheme under Patent Act. (7)		
4	What are the various cybercrimes? Explain in detail with suitable example. (15)	BTL 6	Create

**UNIT V ENFORCEMENT OF IPRs**  
**Infringement of IPRs, Enforcement Measures, Emerging issues – Case Studies.**  
**PART-A**

Q.No	Questions	BT Level	Competence
1.	Give the elements of infringement	BTL-2	Understanding
2.	Mention the various myths of copyright infringement.	BTL-2	Understanding
3.	Illustrate the components of contributory infringement	BTL-1	Remembering
4.	What is vicarious infringement.	BTL-1	Remembering
5.	Show the Nature of the Copyrighted Work	BTL-4	Analyzing
6.	Define Fair Use Cases.	BTL-1	Remembering
7.	What are the uses of Parody	BTL-2	Understanding
8.	Compare the Defenses to Infringement	BTL-4	Analyzing
9.	What are the infringement actions	BTL-1	Remembering
10.	State the importance of Remedies for Infringement	BTL-6	Creating



11.	Why Piracy of Software is most important?	BTL-2	Understanding
12.	List the Issues Confronting Cyberspace Users	BTL-1	Remembering
13.	How Digital Rights Managements used ?	BTL-6	Creating
14.	Mention any two features of digital millennium copyright ACT	BTL-3	Applying
15.	List the Issues Arising under the DMCA	BTL-3	Applying
16.	Explain the Enforcement Measures.	BTL-4	Analyzing
17.	Mention the importance of recent developments in copyright law.	BTL-5	Evaluating
18.	What is the difference between terms of the trade	BTL-1	Remembering
19.	List the Limitations on the Rights of Mask Work Owners.	BTL-3	Applying
20.	Summarize the Duration of Protection and Exclusive Rights.	BTL-5	Evaluating
<b>PART-B</b>			
1	Explain the Copyright Ownership (13).	BTL-5	Evaluating
2	Discuss the Duration of Copyright in Works of Joint Ownerships (13)	BTL-2	Understanding
3	Illustrate some transfers of copyright in detail. (13)	BTL-3	Applying
4	Describe about the grants executed prior and after January 1, 1978 (13)	BTL-2	Understanding
5	What are the duration of copyright (3) Explain each of Duration under the 1909 Copyright Act.(10)		
6	Explain in detail the Effect of 1976 Copyright Act on Preexisting Works. (13)	BTL-1	Remembering
7	Demonstrate the functions of elements of infringement ownership of copyright.(13)	BTL-3	Applying
8	Generalize the importance of contributory infringement and vicarious infringement .(13)	BTL-6	Creating
9	Explain in detail about defenses to infringement .(13)	BTL-4	Analyzing
10	Discuss the infringement actions and remedies for infringement(13)	BTL-1	Remembering
11	Summarize Enforcement Measures in IPR with suitable example.(13)	BTL-2	Understanding
12	Analyze: i) Notice of Copyright (5) ii) Infringement of Computer Programs (4) iii) Licensing of Computer Programs (4)	BTL-4	Analyzing
13	Compare and contrast the Emerging issues of IPR. (13)	BTL-4	Analyzing
14	Explain in detail about copyright protection for automated databases . (13)	BTL-1	Remembering
<b>PART C</b>			

1	What are the various parties' rights in the movie and the song? Discuss ownership rights and the duration of the copyrights for these works. (15)	BTL-6	Creating
2	Holiday hired an independent contractor to create a movie explaining its ships' safety features. The parties had no written agreement. Holiday also instructed its musical director (who has been employed with Holiday for four years) to compose an instrumental musical piece that could be played at the end of its musical shows.. (15)	BTL-5	Evaluating
3	Discuss the copyrightability of the works discussed in the case study aswell as any other copyright or infringement issues relating to the works. (15)	BTL-4	Analyzing
4	Holiday has compiled a database of all of its customers, consisting of their names (listed alphabetically), addresses, cruises attended, and how much money they spent on each cruise on excursions, liquor, and so forth. Holiday intends to use this to market additional cruises to these customers. Holiday also uses a software package that it licensed from ABC Inc., which allows it to prepare bills for its customers at the end of each cruise on its ship Explorer. Holiday would like to make several copies of this software so it can use it for each of its ships. (15)	BTL-6	Creating

5	<b>Compare</b> parallelizing the reduce solver using Open MP and MPI.(13)	BTL 4	Analyze
6	<b>Demonstrate</b> the following in detail i) Recursive depth-first search.(7) ii)Non recursive depth-first search.(6)	BTL 3	Apply
7	i)Discuss about static parallelization of tree search.(7) ii) <b>Describe</b> in detail about static parallelization of tree search using pthreads.(6)	BTL 1	Remember
8	<b>Illustrate</b> the dynamic parallelization of tree search using pthreads .(13)	BTL 3	Apply
9	<b>Evaluate</b> Parallelizing the tree-search programs using OpenMP.(13)	BTL 5	Evaluate
10	<b>Formulate</b> the Implementation of tree search using MPI and dynamic partitioning.(13)	BTL 6	Create
11	<b>Analyze</b> the following in detail i)Implementation of tree search using MPI.(7) ii)Implementation of tree search using static Partitioning.(6)	BTL 4	Analyze
12	i) <b>Analyze</b> the Performance of the MPI solvers.(7) ii)Discuss the Performance of MPI and Pthreads Implementations of Tree Search.(6)	BTL 4	Analyze
13	<b>Describe</b> in detail about performance of the OpenMP implementations in Tree Search.(13)	BTL 1	Remember
14	i) <b>Discuss</b> in detail about Travelling salesman problem. (5) ii) <b>Explain</b> about tree search with pseudo-code for a recursive solution to TSP using depth-first search.(8)	BTL 2	Understand
<b>PART C</b>			
1	In each iteration of the serial n-body solver, we first compute the total force on each particle, and then we compute the position and velocity of each particle. Would it be possible to reorganize the calculations so that in each iteration we did all of the calculations for each particle before proceeding to the next particle? That is, could we use the following pseudocode? for each timestep for each particle { Compute total force on particle; Find position and velocity of particle; Print position and velocity of particle; } If so, what other modifications would we need to make to the solver? If not, why not? <b>explain.</b> (15)	BTL 4	Analyze
2	Run the basic serial n-body solver for 1000 timesteps with a stepsize of 0.05, no output, and internally generated initial conditions. Let the number of particles range from 500 to 2000. <b>Explain</b> how does the run-time change as the number of particles increases? Can you extrapolate and predict how many particles the solver could handle if it ran for 24 hours? (15)	BTL 5	Evaluate
3	Write an MPI program that compares the performance of MPI Allgather using MPI IN PLACE with the performance of MPI Allgather when each process uses separate send and receive buffers. <b>Assess</b> which call	BTL 5	Evaluate

	to MPI Allgather is faster when run with a single process? What if you use multiple processes? (15)		
4	Modify the Pthreads implementation of static tree search so that it uses a readwrite lock to protect the examination of the best tour. Read-lock the best tour when calling Best tour, and write-lock it when calling Update best tour. Run the modified program with several input sets and <b>formulate</b> how does the change affect the overall run-time? (15)	BTL 6	Create