COVER PAGE

Information Storage and Retrieval system (748)
Marking Scheme
Class XII - 2018-19

Time: 3Hours   **Total Marks: 60**

General Instructions:

1. *Marking Scheme is divided into two sections: Section-A and Section- B.*
2. ***Section–A:***
    i.   *Multiple choice question/Fill in the blanks/Direct Questions of 1 mark each. Answer any 10 questions out of the given 12 questions.*
    ii. *Very Short Answer of 2 marks each. Answer any 5 questions from the given 7 questions.*
    iii. *Short Answer of 3 marks each. Answer any 5 questions from the given 7 questions.*
3. ***Section–B:****Long/Essay type questions of 5 marks each. Answer any 5 questions from the given 7 questions.*
4. *All questions of a particular section must be attempted in the correct order.*
5. *Pleasecheck that this question paper contains 33 questions out of which 25 questions are to be attempted.*
6. *The maximum time allowed is 3 hrs.*
7. *The marking scheme carries only suggested value points for the answers. These are only guidelines and do not constitute the complete answers. The students can have their own expression and if the expression is correct, the marks be awarded accordingly.*

Information Storage and Retrieval system (748)

Marking Scheme
Class -XII, 2018-19

Time duration: 3 hrs.   **Maximum Marks: 60**

Q. No.	Expected Answers	Marks
1.	Bibliographic	1
2.	Instructions	1
3.	Source Code	1
4.	Short distances	1
5.	Source	1
6.	a) Content and Accessibility	1
7.	b) Portable document format	1
8.	c) High recall search	1
9.	d) "AND", "OR", "NOT"	1
10.	e) Numerical	1
11.	For commercial website	1
12.	Uniform Resource Locator	1
13.	**Library Automation** The library automation is a process of developing a library system with the help of a mechanism and machines to get its work done automatically. It is an application of Computer and Communication Technology in library operations and activities to eliminate/ reduce the manual work.	1 1
14.	Answer should be based on following points Aspects in the planning process of library Automation (Any four) • Identification of the library functions to be automated • Feasibility Study • System requirement • Budget • Training	 1 1

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15.	Answer should be based on following points **Operating System:** A program which controls the overall internal operations of a computer system. It performs: • Booting and rebooting functions • Schedule the tasks • Manage the files Ex: - windows, Linux etc.	1 1
16.	Answer should be based on following points **Categories of E-resource on the basic of contents: (Any four)** • E-book • E-Journal • E-Newspaper • E-Database • Subject gateways • Other E-document	½ + ½ + ½ + ½
17.	Answer should be based on following points **Benefits of E-Journals to the libraries (Any four)** • Superior resource delivery • Delivery of service is faster • Improved service • Cost saving • Reduced shelving, binding, maintenance, etc. • Simultaneous access	½ + ½ + ½ + ½
18.	Answer should be based on following points **Four functions of an information retrieval system (Any four)** • To identify the sources of relevant information. • To analyze the contents of the sources	½ + ½ +

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	• To represent the contents of the analysed sources for matching with the users' queries.	½ +	
	• To match the search statement with the stored database		
	• To retrieve information which are relevant	½	
	• To make the necessary adjustments in the system based on feedback from the users.		
19.	Answer should be based on following points **E-mail web tools helps Librarian in following ways:** • Helps in providing services to the distant users • Helps in promoting the services • Helps in informing the user about recent addition of library. • Helps user to communicate with library staff without coming to the library	½ + ½ + ½ + ½	
	Short Questions		
20.	Answer should be based on following points **Need and purpose of Library Automation are (Any three points):** i. **Accuracy and Reliability**: It removes the possibility of data error and yields the user a reliable service. ii. **Time saving:** Saves the time of library staff as well as user. iii. **Statistics generation**: Helps to generate multiple statistics. iv. **Library Service**: It helps to give better access to resources within library and elsewhere and improve the quality of library services. v. **Resource Sharing**: It makes resource sharing possible as data of the library becomes sharable among libraries. vi. **Dissemination of information**: The automation provides capability to disseminate information about the resources and services of the library through web. vii. **OPAC** viii. **Enhancement of Library Management:**	1 3	

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21.	Answer should be based on following points	
	Application software:	
	Application software is designed to perform a particular task or a group of tasks to satisfy the needs of a particular environment.	1
	Purpose of Library Automation software (LAS)(Any two):	
	i. With the help of LAS, the repetitive work may be done in very less time and with accuracy.	½ +
	ii. The application of LAS saves the precious time of the library users as it provides them quick and accurate information service.	½ +
	iii. The LAS facilitates to update, edit and replace the existing data and different information which make day to day task easier.	½ +
	iv. The LAS has the provision of creating different reports which helps in managing the library functions and further planning and designing better services to the users.	½
22.	Answer should be based on following points	
	Comparison (Any three):	
	1) The proprietary software is software for which source code is not open. But the open source software is software for which source code is open.	1
	2) In the proprietary software, users are not being given the right to open, modify or further distribute the source code of such software. But in the open source the users are granted License to use, study, modify and further redistribute it.	1
	3) The owner of the proprietary software takes fees for granting the License for using its application while open source software is provided free.	1
	4) Example of proprietary software are LIBSYS, VIRTUA, TRUDAN etc. while example of open source software one KOHA, New Gen Lib, ABCD etc.	

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		Or		
		Proprietary Software	**Open source software**	
		1) Source code is not open 2) User's have no right to modify or distribute the source code 3) Owner takes fee from user 4) Example: LIBSYS, VIRTUA, TRUDAN etc.	1) Source code is open 2) User's have right to modify or distribute the source code 3) It is free 4) Example: KOHA, New Gen Lib., ABCD etc.	
23.	Answer should be based on followingpoints **Wireless Technology in Networking** • Wireless Technology in Networking for transmission of data occurs in Local Area Network. This technology is termed as Wi-Fi. • It is the most popular wireless technology that allows an electronic device to exchange data or connect to the network using radio waves. • Wi-Fi facilities are now available at many public places and commercial complex.			1 1 1

24.	Answer should be based on following points
	
	Advantages of E –resources(Any three):
	
	  i. **Multiple Access**: Same E-resources can be accessed by many readers simultaneously.
	
	  ii. **Remote Access**: A reader can read or download E-resources from the compatible devices as desktop computer, laptop etc.
	
	 iii. **Speed:** The delivery of e-resources is fast. It can beaccessed from anywhere in the world.
	
	  iv. **Space:**The E-resource saves physical space to store.
	
	  v. **Functionality**: Searching content of e-resources can be done with the click.
	
	Disadvantages of the E-resource(Any three):
	
	  i. **Copyright:**The copyright is the legal right given to the creator
				1 ½
				
				1 ½

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	of the content of the information resources. It is always necessary to take permission from the owner of the resources to read, download or browse. ii. **Access to Network:** E-resources are accessible through internet or any other network. In the absence of the network, it is not possible to access the resources. iii. **Skills:**Searching, retrieving and making use of e-resources require a certain level of skill. iv. **Cost of the Resources:**The cost of e-resources is very high in comparison to printed resources. v. **Language:** Very less E-resources are available in vernacular language		
25.	Answer should be based on following points Basic steps in the search process of IR are i. **Recognise and state the need**: specify the requirement ii. **Develop the search strategy**: This is query formulation step iii. **Execution of the search strategy:** Execution of search iv. **Review search Result**: Either get the matching result or else provide scope for edit/modify the search v. **Edit search result**: Transformation of search result into usable format vi. **Evaluation of the results by the user**: participation of the searcher to quantify his/her search result to use.	½ + ½ + ½ + ½ + ½ + ½
26.	Answer should be based on following points **Six web tools used for promoting Library services are (Any Six):** • Library website/ Portals • E-mail • Instant Messaging • Listserv • Forum • Blogs	1	

		Any two in details	
		1) **Library website/ portal:** Library website provide access to all information about library resources and services. It integrates resources and user communities via a single location.	1
		2) **Instant Messaging**: it is one of the applications of the e-messaging system which enables user to chat online via Internet. It allows to add others contact email via inviting other.	1
		Section B	
27.		Answer should be based on following points **Different housekeeping operations are**	1
		a) Acquisition	
		b) Cataloguing	
		c) Serial Control	
		d) Circulation	
		Implementation of Automation	
		a) **Acquisition**: Automation of acquisition systems are developed to facilitate ordering, receiving library materials, and monitoring expenditures. Following works of Acquisition may be automated.	1
		i. Selection, Approval and Ordering	
		ii. Cancellation, Receiving and payment	
		iii. Budget	
		iv. Currency	
		v. Subject	
		vi. Letters	
		b) **Cataloguing:** MARC (**Ma**chine **R**eadable **C**atalogue) or standard bibliographic format is used to describe the library materials. Each field in the MARC describes the information about the material record such as author, title, publisher, dare, language, media type etc.	1
		c) **Serial Control:**The automation of serial control includes the process of acquiring periodicals involving selection, order,	1

	procurement and other functions.	
	d) **Circulation:** Automation of circulation includes creation of members record, computerised checkout and check in, reservation of document and generation of different reports.	1
28.	Answer should be based on following points **KOHA:** KOHA is a free and open integrated Library Automation Software. It was developed by Katipo communication Ltd. Wellington, New Zealand for HorowwhenuaLibrary Trust (HLT). It was first released in July 2000. KOHA version 3 onwards is available for LINUX environment. **Salient features of KOHA (Discuss in brief Any six)**	2
	i. **Centralized Vs Decentralized Library:**With the help of this software, control can be centralized and real time monitoring system of the library operations can be developed.	½ +
	ii. **Administration:**It has strong administration tools.	½ +
	iii. **Tools**	½ +
	iv. **Patrons**	½ +
	v. **Circulation**	½ +
	vi. **Cataloguing**	½
	vii. **Serials**	
	viii. **Acquisitions**	
	ix. **Lists and cort**	
	x. **Reports**	
	xi. **Searching**	
	xii. **OPAC**	
	xiii. **Customization**	
29.	Answer should be based on following points **Layers of Open System Interconnection (OSI)reference model**	
	i. The Physical layer	1
	ii. The Data link layer	
	iii. The Network layer	
	iv. The Transport Layer	
	v. The Session Layer	

	vi. The Presentation Layer vii. The Application Layer Discuss any four layers: i. **The Physical Layer:**This layer concentrates on proper transmission of bits to its destination. ii. **The Data link Layer**: It transforms bits into a frame line. It concerned on error free data transmission. iii. **The Network Layer**: It transforms frame lines into large or small packets and determines proper routing of these packets from their source to destiny. iv. **The transport Layer:** It accepts data from Network layer and split it into small units and ensures the complete and accurate data transmission. v. **Session Layer**: It exchanges session protocol Data unit (SPDU) and allows establishing sessions between computers. vi. **The Presentation Layer**: It deeds with the syntax and semantics of the transmission. vii. **The Application Layer**: It contains various application protocols such as FTP, HTTP.	1 1 1 1

30.	Answer should be based on following points
	
	Networking Topology:
	
	It is a layout of interconnection of nodes and their workflow in a network.
	
	Types of Networking Topology:
	
	a) Linear b) Star c) Ring d) Tree
	
	e) Mesh f) Hybrid
	
	Difference between Star, Ring and Tree Network Topology
	
	(Three difference)
	
	1) **Star:** Computers are connected to a central hub through a dedicated link or a common path.
	
	    Ring: Every nodegets connected to its neighbouring nodes on both the sides.
	
	    Tree: It comprised multiple star topologies as a linear or bus
		1
		
		1
		
		1

	network. The control hub of each star topology is directly connected to the central backbone of bus and every individual hub works as a root of tree for all computers.		
	2) **Star**: Error detection is very easy. **Ring**: Error detection is highly difficult. **Tree:** Error detection is very easy.		1
	3) **Star**: An error in any node donot cause disruption of the network **Ring**: An error in any node can cause disruption of the whole network. **Tree:** Failure of backbone can cause total disruption of network		1
31.	Answer should be based on following points **E-Book:** An E-book is the electronic version of a book covering its full contents. It can be viewed on a desktop computer, laptop, and smart phone or e-book reader. **Comparison between E-book and Printed book (Any four)**		1
	E-book	**Printed book**	
	1) Reader can customize E-book while reading as the size of the font or complete display may be changed.	1) Customization is not possible as size and display is fixed.	1
	2) Full text is searchable with the help of search engine of the e-book software	2) Full text search is not possible but the index will help in searching the content.	1
	3) The portability is very high. The reader can store hundred and thousands of books in laptop, smart phone, handheld device etc.	3) The portability is very low as it has volume and weight both.	1
	4) Multiple readers can read same copy of an E-book simultaneously if it is shared through network.	4) Same copy cannot be read simultaneously.	1

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	5) Loss theft, degradation or damage in disaster is impossible.	5) Can be lost, theft degradation, or in case of disaster can be damaged.	
32.	Answer should be based on following points		

Search techniques are (Any four)

i.	Keywords or String search	½ +
ii.	Phrase search	½ +
iii.	Subject search	½ +
iv.	Boolean operator (AND, OR, NOT)	½
v.	Truncation	
vi.	Proximity search	
vii.	Limiting search	
viii.	Range search	

i. **Boolean Search**: The three operators of Boolean logic are logical sum (+) -OR, logical Product(x)-AND, and logical difference (-) – NOT.

AND operators: 'AND" logic allows the searcher to specify the coincidence of two or more product. 1

OR Operators: When two terms are connected with "ÓR" and searched then the search engines retrieve those records which have either of terms or both.

NOT Operators: When two terms are connected using the NOT operators and searched then, the search engines retrieve those records which do not have the second term.

ii. **Proximity Search**: This search facility allow the users to specify (i) whether two search terms should occur adjacent to each other (ii) whether one or more words occur in between the search terms (iii) whether the search term should occur in the same 1 paragraph irrespective of the intervening words and so on.

Ex: FISH SAME CHIPS

FISH WITH CHIPS

FISH ADJ CHIPS

FISH NEAR CHIPS

	iii. **Range Search**: It is useful with numerical information. It is important in selecting records with certain data ranges. The following options are used for range searching: • Greater than(>) • Less than (<) • Equal to(=) • Greater than and equal to (> =) • Less than and equal to(< =)	
33.	Answer should be based on following points **Web 2.0** Web 2.0 is the second phase in the web's evolution that architect web information for use and reuse.Web 2.0 facilitates two way communication. **Features of web 2.0 (Any four)** i. **Dynamic web interface**: Web 2.0 has multiple channels of linking to the sources, users can connect each piece of content from any parts of information sources. Ex: Google Map etc. ii. **Rich user experience**: Web 2.0 user is not only having the provision to receive information but also they can review and comment on it .ex. Amazon.com etc. iii. **Participation and collaboration**: With the help of web 2.0 user can participate in content sourcing and writing. Ex. Wikipedia etc. iv. **Affinity and groups**: Web 2.0 has become an avenue for web user to share their through forum, discussion board, listserv etc. tweeter, etc. v. Open web vi. RDF (Resource Description Framework mechanism) vii. Social tagging viii.Multilingual web ix. Semantic web x. Pay per use	1 1 1 1 1