



BUREAU OF INDIAN STANDARDS
ELECTRONICS & IT DEPARTMENT

MINUTES	
2nd meeting of computer hardware, peripherals, office equipment and user interfaces Sectional Committee, LITD 36	
DATE: 12 July 2022 (Tuesday)	VENUE: Virtual (through Webex)
TIME: 10 30 h to 13 30 h	Meeting Link: https://bisindia.webex.com/bisindia/j.php?MTID=me6815dfcf80722782281916ec1a42f48
CHAIRPERSON: Shri Ajay Kumar Rai	
MEMBER SECRETARY: Shri Koushik Dutta	

PRESENT:

- i. Shri Ajay Kumar Rai (Chairperson) Government e-Market Place, New Delhi
- ii. Col. A.A. Jafri (Retd.) Manufacturers Association for Information Technology, New Delhi
- iii. Dr. J. K. Mandal The Institution of Electronics and Telecommunication Engineers, New Delhi
- iv. Shri Puneet Singhal Computers and Media Dealer's Association, New Delhi
- v. Shri Rajender Saini Dell Technologies, Gurugram
- vi. Shri V. Manjunath UL India Private Limited, Bengaluru
- vii. Shri Rishi Verma Manufacturers Association for Information Technology, New Delhi
- viii. Shri Bhanu Krishnadev P. Laboratory Recognition & Management Department, BIS
- ix. Shri Koushik Dutta (Member Secretary) Electronics & IT Department, BIS

Item 0 WELCOME AND OPENING REMARKS

- 0.1 The Member Secretary extended a warm welcome to the participants. He briefed the members on the agenda of the meeting and requested them to kindly introduce themselves.
- 0.2 After introduction of the members, the Member Secretary requested the Chairperson to initiate the proceedings.
- 0.3 The Chairperson welcomed the participants and apprised them of the purpose of the meeting. He requested the members to give their valuable input and contribute meaningfully to the formulation of standards under this committee.

Item 1 CONFIRMATION OF THE MINUTES OF PREVIOUS MEETING

- 1.1 The Member Secretary informed that the minutes of the 1st meeting of committee held on 04 October 2021 were circulated on 10 November 2021. No comments were received on the minutes. The committee formally confirmed the minutes of the 1st meeting.

Item 2 SCOPE & COMPOSITION OF COMMITTEE

- 2.1 The committee considered the scope and composition as given at item 2.1 of the agenda. The list of the members is placed at Annex A for reference. The committee also considered and acceded to the co-option request received from HP India who is one of the leading manufacturers of computer hardware and peripherals in India.
- 2.2 Col. A. A. Jafri (Retd.) from MAIT informed that Shri George Paul, erstwhile DG (MAIT) has moved to an advisory role and he is currently acting as its DG. He informed that henceforth he will represent MAIT in the committee meetings.
- 2.3 The committee also decided that DG (MAIT) will be the convenor to the panels under LITD 36 namely Review of Standards (Panel P1) and Panel for ink cartridges and toners of printers (Panel P2).

Item 3 PROGRAM OF WORK OF LITD 36

- 3.1 The committee noted the program of work as given at item 3.1 of the agenda. The standards under this committee have been listed in Annex B for reference.

Item 4 ACTIVITIES OF THE PANELS

4.1 LITD 36/P1 PANEL: REVIEW OF STANDARDS

- 4.1.1 The issue of review of standards under this panel was discussed. The proposed recommendations by the panel were discussed and approved by the committee. The details are given in Annex C.

4.2 LITD 36/P2 PANEL: Ink cartridges and toners of printers

- 4.2.1 The contents of the study report prepared by this panel on the “Feasibility of Standardizing the dimensions of Cartridges used in Printers” were discussed. The report is enclosed separately as Annex G. After detailed deliberation, the members opined that it is technically not possible to standardize the dimensions of the Ink cartridges used in printers.
- 4.2.2 The committee accepted the study report prepared by this panel and recommended that it may be shared with MeitY and the stakeholders who raised this issue.

Item 5 REVIEW OF THE PUBLISHED STANDARDS

- 5.1 The standards published were reviewed and the recommendations given in the agenda were approved by the committee.
- 5.2 The standards recommended for withdrawal are listed in Annex D.
- 5.3 The Standards listed in Annex E were approved for reaffirmation by the committee.
- 5.4 The Standards listed in Annex F were approved for reprinting by the committee.

Item 6 INTERNATIONAL STANDARDIZATION ACTIVITIES

- 6.1 While noting the information as given in item 6 of the agenda, the Chairperson urged the members to come forward and nominate themselves in the WGs so as to have an active participation in standardization activities and convey India’s views in the international fora adequately.
- 6.2 The Chairperson requested MAIT to suggest a few experts who can be nominated in the WGs. DG (MAIT) assured that he will explore and propose the names of the experts within 15 days.
- 6.3 DG (MAIT) stated that there are a few experts working on “Sustainability Requirements” who can be considered for nomination in the relevant WG i.e., ISO/IEC/JTC28/WG 6. He informed that he will discuss the issue with the concerned official(s) and propose their names.

Item 7 EMERGING AREAS FOR THE STANDARDS TO BE DEVELOPED

- 7.1 The emerging areas relevant to the committee where consensus may be needed were discussed. While acknowledging that there are a few areas where there is ample scope for standardization, the committee opined that initially permanent storage media especially SSDs and thermal printers can be taken up for standardization. The Chairperson requested the members to suggest a few more areas which can be considered for standardization. He remarked that experts in these areas may be coopted in the committee.

Item 8 WTO-TBT ENQUIRY POINT

- 8.1 The committee noted the information regarding the role of BIS as the WTO TBT Enquiry Point as given at item 8 of the agenda.

Item 9 NATIONAL INSTITUTE FOR TRAINING IN STANDARDISATION (NITS)

- 9.1 The committee noted the information as given at item 9 of the agenda and appreciated the endeavour of BIS to provide trainings on a host of areas of public interest.

Item 10 DATE AND PLACE FOR THE NEXT MEETING

- 10.1 It was decided that the next meeting of the committee will be tentatively held in October 2022. The actual date will be decided in consultation with the Chairperson.

Item 11 ANY OTHER BUSINESS

- 11.1 The Chairperson stressed the need to have more active participation of our stakeholders in standardization activities both at the national and international level. He requested the members to actively participate in committee meetings and contribute more effectively to the cause of standardization.
- 11.2 There being no other business, the meeting ended with a hearty vote of thanks to the members and Chairperson.

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ANNEX A

Sl. No.	Organization	Name
1	Government e Market Place, New Delhi	Shri Ajay Kumar Rai
2	Canon India Private Limited, Gurugram	Shri Satoshi Hirabayashi
3		Shri Ashish Khanna
4	Centre for Development of Advanced Computing, Pune	Shri Rajesh Kushwaha
5		Ms. Savita Kashyap
6	Computer Society of India, New Delhi	Prof. M. N. Hoda
7	Computers and Media Dealer's Association, New Delhi	Shri Puneet Singhal
8		Shri Manoj Khanna
9		Shri Pramod Rajpal
10	Dell Technologies, Gurugram	Shri Rajender Saini
11		Shri Prem Ananth
12	Electronics Regional and Test Laboratory (North), New Delhi	Shri M.P. Sharma
13	HP India Sales Private Limited, Bengaluru	Ms. Upasana Choudhry
14		Ms. Anubhuti
15		Ms. Mayuri Simaria Jain
16	Hewlett Packard India Sales Private Limited, Gurugram	Ms. Manjari Gopalan
17	Infineon Technologies India Private Limited, Noida	Shri Madhusudhanan Sampath
18		Shri Ajay Hanyalu
19	Manufacturers Association for Information Technology, New Delhi	Shri George Paul
20		Shri Rishi Verma
21	Ministry of Electronics and Information Technology, New Delhi	Shri U.K.Nandwani
22		Ms. Asha Nangia
23		Shri Mukul Kumar Yadav
24	Ministry of Electronics and Information Technology- Standardization Testing and Quality Certification (STQC), New Delhi	Shri Manish Selal

25	Moser Baer India Limited, New Delhi	Shri Yogesh Singhal
26	National Informatics Centre, New Delhi	Shri Rajdeep Choudhury
27	ST Microelectronics Private Limited, Greater Noida	Shri Prashant Pandey
28	Samsung India Electronics Private Limited, New Delhi	Shri Deepak Bharadwaj
29		Shri Sanjay Kumar Bansal
30	The Institution of Electronics and Telecommunication Engineers, New Delhi	Dr. Jyotsna Kumar Mandal
31		Prof. Nilesh N Kasat
32	UL India Private Limited, Bengaluru	Shri Ashish Mathur
33		Shri V. Manjunath

ANNEX B

Sl. No.	IS Number	IS Title
1.	IS 1885 (Part 52/Sec 3) : 1980	Electrotechnical vocabulary Part 52 data processing Sec 3 equipment technology
2.	IS 1885 (Part 59) : 1986	Electrotechnical vocabulary Part 69 educational or training equipment and systems
3.	IS 11402 (Part 1) : 1986 ISO 3562:1976	Interchangeable magnetic single disk cartridge top loaded Part 1 physical and magnetic characteristics
4.	IS 11404 (Part 1) : 2018 ISO 6596-1:1985	Information processing - Data interchange on 130 mm 5 25 In flexible disk cartridges using two frequency recording at 7 958 ftprad 1 9 tpmm 48 Tpi on one side Part 1 dimensional physical and magnetic characteristics First Revision
5.	IS 11404 (Part 2) : 1986 ISO 6596-2:1985	Specification for data interchange on 130 mm single sided 1 9 tpmm flexible disk cartridges using two frequency recording Part 2 track format
6.	IS 11405 (Part 1) : 2018 ISO 7487-1:1993	Information technology - Data interchange on 130 mm 5 25 In flexible disk cartridges using 3 frequency modulation recording at 7 958 ftprad 1 9 tpmm 48 Tpi on both sides - Iso type 202 Part 1 dimensional physical and magnetic characteristics First Revision
7.	IS 11405 (Part 2) : 1986 ISO 7487-2:1986	Specification for data interchange on 130 mm double sided 1 9 tpmm flexible disk cartridges using 3 frequency modulation recording Part 2 track format
8.	IS 11405 (Part 3) : 2018 ISO 7487-3:1986	Information processing - Data interchange on 130 mm 525 in flexible disk cartridges using modified frequency modulation recording at 7 958 ftprad 19 tpmm 48 tpi on both sides PART 3 Track format B
9.	IS 11406 : 1986 ISO 7665:1983	File structure and lABelling of flexible disk cartridges for information interchange
10.	IS 11408 : 2006 ISO 1864:1992	Information technology - Unrecorded 12 7 mm 0 5 In wide magnetic tape for information interchange - 32 ftpmm 800 Ftpinrzi 126 ftpmm 3 200 Ftpi phase encoded and 356 ftpmm 9 042 Ftpinrzi First Revision
11.	IS 11409 : 2006 ISO/IEC 1863:1990	Information processing - 9 - Track 12 7 mm 0 5 In wide magnetic tape for information interchange using NRZI at 32 ftpmm 800 Ftpi - 32 cpmm 800 Cpi First Revision
12.	IS 11410 : 2006 ISO/IEC 3788:1990	Information processing - 9 - Track 12 7 mm 0 5 In wide magnetic tape for information interchange using phase encoding at 126 ftpmm 3 200 Ftpi - 63 cpmm 1 600 Cpi First Revision
13.	IS 11411 : 1986 ISO 5652:1984	Specification for 9 - Track 12 7mm wide magnetic tape format and recording using group coding at 246 cpmm for information processing
14.	IS 11419 : 2018 ISO 1001:2012	Information technology - File structure and labelling of magnetic tapes for information interchange Second Revision
15.	IS 11853 (Part 1) : 1987 ISO 8378-1:1986	Data Interchange On 130 Mm Double Sided 3 8 Tpmm Flexible Disk Cartridges Using Modified Frequency Modulation Recording - Part 1 Dimensional Physical And Magnetic Characteristics

Sl. No.	IS Number	IS Title
16.	IS 11853 (Part 2) : 1986 ISO DIS 8378-2:1986	Specification for data interchange on 130 mm double sided 3 8 tpm flexible disk cartridges using 3 frequency modulation recording Part 2 track format a
17.	IS 11853 (Part 3) : 1986 ISO DIS 8378-3:1986	Data Interchange on 130 mm Double Sided 3 8 tpm Flexible Disk Cartridge Using Modified Frequency Recording - Part 3 Track Format B
18.	IS 12223 (Part 1) : 1987 ISO 8063-1:1986	Specification for 6 30 mm wide magnetic tape cartridge using imfm recording Part 1 mechanical physical and magnetic properties
19.	IS 12223 (Part 2) : 1989 ISO 8063-2:1986	Data Interchange on 6 30 mm Wide Magnetic Tape Cartridge Using IMFM Recording at 252 ftpmm - Part 2 Track Format and Method of Recording For Data Interchange in Start Stop Mode
20.	IS 12327 (Part 1) : 1988 ISO 8630-1:1987	Information processing - Data interchange on 130 mm flexible disk cartridges using 3 frequency modulation recording at 13 262 ftprad on 80 tracks on each side Part 1 dimensional physical and magnetic characteristics
21.	IS 12327 (Part 3) : 1989 ISO 8630-3:1987	Specification for data interchange on 130 mm double sided 3 8 tpm high density flexible disk cartridge using 3 frequency modulation recording at 13 262 ftprad Part 3 Track Format B For 80 Tracks
22.	IS 12660 : 1989 ISO 4341:1978	Information processing - Magnetic tape cassette and cartridge labelling and file structure for information interchange
23.	IS/ISO/IEC 12862 : 2011	Information Technology - 120 mm 8 54 Gbytes per Side and 80 mm 2 66 Gbytes per Side DVD Recordable Disk for Dual Layer DVD-R for DL
24.	IS 12876 : 1989 ISO 3407:1983	Specification for information interchange on 3 81 mm magnetic tape cassette at 4 cpmm phase encoded at 63 ftpmm
25.	IS 12922 (Part 1) : 1989 ISO 9880-1 :1987	Specification for 90 mm flexible disk cartridge using 3 - Frequency recording at 7 958 ftprad on 80 tracks on each side Part 1 dimensional physical and magnetic characteristics
26.	IS 12922 (Part 2) : 1989 ISO 8860-2:1987	Specification for 90 mm flexible disk cartridge using 3 frequency r - Ecording at 7 958 ftprad on 80 tracks on each side Part 2 track format
27.	IS/ISO/IEC 13170 : 2009	Information Technology- 120 mm 8 54 Gbytes per Side and 80 mm 2 66 Gbytes per Side DVD Re-recordable Disk for Dual Layer DVD-RW for DL
28.	IS 13737 : 1993 ISO/IEC 10089:1991	Information technology - 130 mm rewritABLE optical disk cartridge for information interchange
29.	IS 13738 (Part 1) : 1993 ISO/IEC 9529-1:1989	Information processing systems - Data interchange on 90 mm flexible disk cartridges using 3 frequency modulation recording at 15 916 ftprad on 80 tracks on each side Part 1 dimensional physical and magnetic characteristics
30.	IS 13738 (Part 2) : 1993 ISO/IEC 9529-2:1989	Information processing systems - Data interchange on 90 mm flexible disk cartridges using 3 frequency modulation recording at 15 916 ftprad on 80 tracks on each side Part 2 track - Format
31.	IS 14175 : 2018 ISO 9293:1994	Information technology - Volume and file structure of disk cartridges for information interchange First Revision

Sl. No.	IS Number	IS Title
32.	IS 14176 : 1994 ISO 9660:1988	Information processing - Volume and file structure of CD - ROM for information interchange
33.	IS 14441 : 1997	Specification for keyboard
34.	IS 14486 : 1997	General purpose dot matrix printer - Specificaiton
35.	IS 14701 : 1999 ISO/IEC 10090:1992	Information technology - 90 mm optical disk cartridges rewritable and read only for data interchange
36.	IS 14886 : 2000	Switch mode power supply - Specificaiton
37.	IS 14896 : 2001	Personal computer - Specificaiton
38.	IS 15062 : 2001	Floppy disk drive - Specificaiton
39.	IS 15189 : 2002 ISO/IEC 10149:1995	Information technology - Data interchange on read - Only 120 mm optical data disks CD - ROM
40.	IS/ISO/IEC 16824 : 1999	Information Technology - 120 mm DVD Rewritable Disk DVD-RAM
41.	IS/ISO/IEC 16963 : 2015	Information Technology- Digitally Recorded Media for Information Interchange and Storage - Test Method for the Estimation of Lifetime of Optical Disks for Long-Term Data Storage
42.	IS/ISO/IEC 17342 : 2004	Information Technology- 80 mm 1 46 Gbytes per Side and 120 mm 4 70 Gbytes per Side DVD Re-Recordable Disk DVD-RW
43.	IS/ISO/IEC 17592 : 2004	Information Technology - 120 mm 4 7 Gbytes per Side and 80 mm 1 46 Gbytes per Side DVD Rewritable Disk DVD-RAM
44.	IS/ISO/IEC 19752 : 2017	Information technology Office equipment Method for the determination of toner cartridge yield for monochromatic electrophotographic printers and multi-function devices that contain printer components
45.	IS/ISO/IEC 19798 : 2017	Information technology Office equipment Method for the determination of toner cartridge yield for colour printers and multi-function devices that contain printer
46.	IS/ISO/IEC 19799 : 2007	Information technology Method of measuring gloss uniformity on printed pages
47.	IS/ISO/IEC 20563 : 2001	Information Technology 80 mm 1 23 Gbytes per Side and 120 mm 3 95 Gbytes per Side DVD-Recordable Disk DVD-R
48.	IS/ISO/IEC 23912 : 2005	Information Technology 80 mm 1 46 Gbytes per Side and 120 mm 4 70 Gbytes per Side DVD Recordable Disk DVD-R
49.	IS/ISO/IEC 24735 : 2021	Information technology Office equipment Method for measuring digital copying productivity
50.	IS/ISO/IEC 29142-1 : 2013	Information Technology - Print Cartridge Characterization Part 1 General Terms Symbols Notations and Cartridge Characterization Framework
51.	IS/ISO/IEC 29142-2 : 2013	Information Technology - Print Cartridge Characterization Part 2 Cartridge Characterization Data Reporting
52.	IS/ISO/IEC 29142-3 : 2013	Information Technology - Print Cartridge Characterization Part 3 Environment

ANNEX C

SI. No.	IS No.	TITLE	Recommendations (As mentioned in the agenda)	Decision
1	IS 1885 (Part 52 / Sec 3) : 1980	Electrotechnical vocabulary Part 52 data processing Sec 3 equipment technology	It was recommended to withdraw the standard as the relevant/base ISO Standard ISO 2382 has been adopted and published.	This standard may be withdrawn.
2	IS 1885 (Part 59) : 1986	Electrotechnical vocabulary Part 69 educational or training equipment and systems	The Terminology mentioned in this Indian Standard are mostly covered in the different terminology standards under LITD. For the remaining terminology to be considered, it is recommended for the adoption of IEC 60050-171: 2019, International Electrotechnical Vocabulary (IEV) - Part 171: Digital technology - Fundamental concepts.	IEC 60050-171: 2019, International Electrotechnical Vocabulary (IEV) - Part 171: Digital technology - Fundamental concepts may be adopted, superseding the IS 1885(Part 59): 1986 It was further decided to circulate it as a WC-Draft for a period of 60 days for comments.
3	IS 14441 : 1997	Specification for keyboard	No update	The panel is reviewing these standards. The Chairperson advised that panel may give its recommendation by 30 September 2022.
4	IS 14486 : 1997	General purpose dot matrix printer – Specification	No update	
5	IS 14886 : 2000	Switch mode power supply - Specification	No update	

6	IS 14896 : 2001	Personal computer – Specification	The Panel has drafted the Indian Standard based on the inputs provided by ETDC, Chennai. Committee may please review and approve the same.	The committee perused and accepted the draft prepared by the panel and decided to circulate it as a P-Draft for a period of 30 days for comments.
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ANNEX D

Sl. No.	IS. No.	Title	Base Standard	Recommendation (As mentioned in the agenda)	Decision
1	IS 11402 (Part 1) : 1986	Specification for Interchangeable magnetic single disk cartridge, top loaded: Part 1 Physical and magnetic characteristics	ISO 3562-1976 'Information processing - Interchangeable magnetic single disk cartridge (top loaded) - Physical and magnetic characteristics	The base ISO standard of this Indian standard has been withdrawn. The Indian standard may be considered for withdrawal if the technology in this is outdated.	The committee recommended that these standards may be withdrawn.
2	IS 11404 (Part 2) : 1986	Specification for data interchange on 130 mm, single sided, 1.9 tpmm, flexible disk cartridges using two frequency recording: Part 2 track format	ISO 6596/2-1985 'Information processing-Data interchange on 130 mm (5.25 in) flexible disk cartridges using two - frequency recording at 7 958 ftprad I,9 tpmm (48 tpi) on one side- Part 2 : Track format',	The base standard of this Indian standard is considered for withdrawal. It may be reviewed by the manufacturers to provide the recommendation.	
3	IS 11405 (Part 2) : 1986	Specification for data interchange on 130 mm, double sided 1.9 tpmm, flexible disk cartridges using 3 frequency modulation recording: Part 2 track format	ISO 7487,2-1985 'Intormation processing-Data interchange on 130 mm (5.25 in) flexible disk cartridgas using - modified frequency. modulation recording at 7 -958 ftprad 1,9 tpmm (48 tpi) on both sides -.. Part 2 : Track format A,'	The base standard of this Indian standard has been withdrawn, hence the Indian standard may be reviewed by the committee to provide recommendation.	
4	IS 11411 : 1986	Specification for 9 - Track, 12.7mm wide magnetic tape format and recording, using group coding at 246 cpmm for information processing	ISO 5652-1984 'information processing - 9-track, 12,7 mm (0.5 in) wide magnetic tape for information interchange - Format and recording, using group coding at 2 46 cpmm (6 250 cpi)',	The base standard ISO 5652-1984 has been withdrawn. The committee may review and provide recommendation on the withdrawal of the Indian Standard.	

5	IS 11853 (Part 1) : 1987	Data Interchange On 130 Mm, Double Sided, 3.8 Tpm,mm, Flexible Disk Cartridges Using Modified Frequency Modulation Recording - Part 1 : Dimensional, Physical And Magnetic Characteristics	ISO 8378/1-1986 'Information processing - Data interchange on 130 mm (5.25 in) flexible disk cartridges using modified frequency modulation recording at 7 958 ftprad 3.8 tpm,mm (96 tpi) on both sides-Part 1 : Dimensional, physical and magnetic characteristics', i	The base ISO Standard has been withdrawn. The committee may review and provide recommendation on the withdrawal of Indian Standard.
6	IS 11853 (Part 2) : 1986	1. Specification for data interchange on 130 mm, double sided, 3.8 tpm,mm; flexible disk cartridges using 3 frequency modulation recording: Part 2 track format A	ISO/DIS 8378/2 'Information processing - Data interchange on 130 mm (5.25 in) flexible disk cartridges using modified frequency modulation recording at 7 958 ftprad, 3.8 tpm,mm (96 tpi), on two sides - Part 2 : Track format A',	The Base standard of this Indian standard has been withdrawn. Committee may review and provide the recommendation on the withdrawal of Indian Standard.
7	IS 11853 (Part 3) : 1986	Data Interchange on 130 mm, Double Sided, 3.8 tpm,mm, Flexible Disk Cartridge Using Modified Frequency Recording - Part 3 : Track Format B	ISO/DIS 8378/3 Information processing - Data interchange on 130 mm flexible disk cartridges using modified frequency modulation recording at 7 958 ftprad, 3.8 tpm,mm (96 tpi), on two sides 'Part 3 Track format B',	The Base standard of this Indian standard has been withdrawn. The committee may review and provide recommendation on the withdrawal of Indian Standard.
8	IS 12223 (Part 1) : 1987	Specification for 6.30 mm wide magnetic tape cartridge using imfm recording: Part 1 mechanical,	ISO 8063/1-1986 Information processing - Data interchange on 6'30 mm (0.25 in) wide magnetic tape cartridge	The Base standard of this Indian standard has been withdrawn. Committee may review and provide recommendation on the

		physical and magnetic properties	using IMFI\,ecording at 252 ftpmm (6 400 ftpi) - Part 1 : Mechanical, physical and magnetic properties’	withdrawal of Indian Standard.
9	IS 12223 (Part 2) : 1989	Data Interchange on 6.30 mm Wide Magnetic Tape Cartridge Using IMFM Recording at 252 ftpmm - Part 2 : Track Format and Method of Recording For Data Interchange in Start/Stop Mode	ISO 8063/2 : 1986 ‘Information processingData interchange on 6.30 mm (0.25 in) wide magnetic tape cartridge using IMFM recording at 252 ftpmm (6400 ftpi) - Part 2: Track format and method of recording for data interchange in start/stop mode’	The base standard of this Indian standard has been withdrawn. Committee may review and provide recommendation on withdrawal of Indian Standard.
10	IS 12327 (Part 1) : 1988	Information processing - Data interchange on 130 mm flexible disk cartridges using 3 frequency modulation recording at 13 262 ftprad on 80 tracks on each side: Part 1 dimensional, physical and magnetic characteristics	ISO 8630-1 : 1987 ‘Information processing Y Data interchange on 130 mm (5’25 in) flexible disk cartridges using modified frequency modulation recording at 13 262 ftprad, on 80 tracks on each side - Part 1 : Dimensional physical and magnetic characteristics, ’	The base standard of this Indian standard has been withdrawn. The committee may review and provide recommendation on withdrawal of Indian Standard.
11	IS 12876 : 1989	Specification for information interchange on 3.81 mm magnetic tape cassette at 4 cpmm, phase encoded at 63 ftpmm	ISO 3407: 1983 ‘Information processing - Information interchange on 3.81 mm (0.150 in) magnetic tape cassette at 4 cpmm(100cpi), phase encoded at 63 ftpmm (1 600 ftpi)’.	The base Standard is withdrawn. The committee may review and provide recommendation on withdrawal of Indian Standard.

12	IS 13738 (Part 1) : 1993	Information processing systems - Data interchange on 90 mm flexible disk cartridges using 3 frequency modulation recording at 15 916 ftprad, on 80 tracks on each side: Part 1 dimensional, physical and magnetic characteristics	ISO/IEC : 9529-1 : 1989 'Information processing system - Data interchange on 90 mm (3.5 in) flexible disk cartridges using modified frequency modulation recording at 15 916 ftprad, on 80 tracks on each side-Part 1 : Dimensional, physical and magnetic characteristics'	As the base ISO/IEC standard has been withdrawn, the Indian Standard IS 13738 (Part 1): 1993 may be considered for withdrawal based on the review by the Committee.	
13	IS 13738 (Part 2) : 1993	Information processing systems - Data interchange on 90 mm flexible disk cartridges using 3 frequency modulation recording at 15 916 ftprad, on 80 tracks on each side: Part 2 track - Format	ISO/IEC 9529-2 : 1989 'Information processing systems - Data interchange on 90 mm (3.5 in) flexible disk cartridges using modified frequency modulation recording at 15 916 ftprad, on 80 tracks on each side - Part 2 : Track format'	As the base ISO/IEC standard has been withdrawn. The committee may review and provide the recommendation the Indian Standard.	

ANNEX E

Sl. No.	IS. No.	Title	Base Standard	Recommendation (As mentioned in the agenda)	Decision
1	IS 11408 : 2006	Information technology - Unrecorded 12.7 mm (0.5 In) wide magnetic tape for information interchange - 32 ftpmm (800 Ftpi), nrzi, 126 ftpmm (3 200 Ftpi) phase encoded and 356 ftpmm (9 042 Ftpi), nrzi (First Revision)	ISO/IEC 1864 :1992 'Information technology — Unrecorded 12,7 mm (0,5 in) wide magnetic tape for information interchange — 32 ftpmm (800 ftpi), NRZ1, 126 ftpmm (3 200 ftpi) phase encoded and 356 ftpmm (9 042 ftpi), NRZ1'	IS 11408: 2006 is an identical adoption of ISO/IEC 1864:1992. As the base ISO/IEC standard has not yet been revised /amended, the Indian Standard IS 11408: 2006 may be reaffirmed.	The committee decided that these standards may be reaffirmed.
2	IS 11409 : 2006	Information processing - 9 - Track, 12.7 mm (0.5 In) wide magnetic tape for information interchange using NRZI at 32 ftpmm (800 Ftpi) - 32 cpmm (800 Cpi) (First Revision)	ISO/IEC 1863 : 1990 'Information processing — 9-track, 12,7 mm (0,5 in) wide magnetic tape for information interchange using NRZ1 at 32 ftpmm (800 ftpi) — 32 cpmm (800 cpi)'	IS 11409: 2006 is an identical adoption of ISO/IEC 1863:1990. As the base ISO/IEC standard has not yet been revised /amended, the Indian Standard IS 11409: 2006 may be reaffirmed.	
3	IS 11410 : 2006	Information processing - 9 - Track, 12.7 mm (0.5 In) wide magnetic tape for information interchange using phase encoding at 126 ftpmm (3 200 Ftpi) - 63 cpmm (1 600 Cpi) (First Revision)	ISO/IEC 3788 : 1990 Information processing — 9-track, 12,7 mm (0,5 in) wide magnetic tape for information interchange using phase encoding at 126 ftpmm (3 200 ftpi) — 63 cpmm (1 600 cpi)	IS 11410: 2006 is an identical adoption of ISO/IEC 3788:1990. As the base ISO/IEC standard has not yet been revised /amended, the Indian Standard IS 11410: 2006 may be reaffirmed.	
4	IS 11419:2018	Information technology - File structure and labelling of magnetic tapes for	ISO/IEC 1001 : 2012 'Information technology — File structure and labelling of magnetic tapes for	As the base ISO/IEC standard have not yet been revised /amended, the Indian Standard IS 11419:2018 may be	

		Information interchange (Second Revision)	information interchange'	considered for reaffirmation.
5	IS 12922 (Part 1) : 1989	Specification for 90 mm flexible disk cartridge using 3 - Frequency recording at 7 958 ftprad on 80 tracks on each side: Part 1 dimensional, physical and magnetic characteristics	ISO 8860/1 : 1987 'Information processing -Data interchange on ~90 mm (3.5 in) flexible disk cartridges using modified frequency modulation recording at 7 958 ftprad on 80 tracks on each side - Part 1 :characteristics', Dimensional, physical and magnetic	The corrigendum ISO 8860-1: 1987 may be considered for adoption and Indian Standard may be considered for reaffirmation and revision.
6	IS 12922 (Part 2) : 1989	Specification for 90 mm flexible disk cartridge using 3 frequency r - Recording at 7 958 ftprad on 80 tracks on each side: Part 2 track format	ISO 8860-2 : 1987 'Information processing - Data interchange on 90 mm (3% in) flexible disk modulation recording at 7 958 ftprad on 80 tracks on each side cartridges using modified frequency Part 2 : Track format',	The corrigendum ISO 8860-2: 1990 may be considered for adoption. The Indian Standard may be considered for reaffirmation and revision.
7	IS 14441 : 1997	Specification for keyboard	Indigenous	LITD 36/P1 is currently reviewing this Indian Standard and is supposed to submit the recommendation. This Indian Standard may be reaffirmed.
8	IS 14486 : 1997	General purpose dot matrix printer - Specification	Indigenous	LITD 36/P1 is currently reviewing this Indian Standard and is supposed to submit the recommendation. This Indian Standard may be reaffirmed.

9	IS 14701 : 1999	Information technology - 90 mm optical disk cartridges, rewritable and read only, for data interchange	ISO/IEC 10090 : 1992 'Information technology - 90 mm optical disk cartridges, rewritable and read only, for data interchange'	As the base ISO/IEC standard has not yet been revised /amended, the Indian Standard IS 14701: 1999 may be reaffirmed.	
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ANNEX F

Sl. No.	IS. No.	Title	Base Standard	Recommendation (As mentioned in the agenda)	Decision
1	IS 12660 : 1989	Information processing - Magnetic tape cassette and cartridge labelling and file structure for information interchange	ISO 4341 : 1978 'Information processing-Magnetic tape cassette and cartridge labelling and file structure for information interchange',	As the base ISO standard has not yet been revised /amended, the Indian Standard IS 12660: 1989 may be considered for reprinting to change the UDC number in cover page to ICS.	The committee decided that these standards may be reprinted to replace the UDC number in the cover page with ICS. It was further decided to circulate these as WC-Drafts for a period of 60 days for comments.
2	IS 13737 : 1993	Information technology - 130 mm rewritable optical disk cartridge for information interchange	ISO/IEC 10089 : 1991 'Information technology 130 mm rewritable optical disk cartridge for information interchange',	As the base IEC standard has not yet been revised /amended, the Indian Standard IS 13737: 1993 may be considered for reprinting to change the UDC number in cover page to ICS.	
3	IS 14176 : 1994	Information processing - Volume and file structure of CD - ROM for information interchange	ISO 9660 : 1988 'Information processing - Volume and file structure of CD-ROM for information interchange',	The Amendment 2 issued by ISO may be taken up for adoption. The Indian Standard may be considered for reprinting to change the UDC number in cover page to ICS	
4	IS 11406 : 1986	File structure and labelling of flexible disk cartridges for information interchange	ISO 7665-1983 'Information processing - File structure and labelling of flexible disk cartridges for information interchange',	As the base ISO standard has not yet been revised /amended, the Indian Standard IS 11406: 1986 may be considered for reprinting to change the UDS in cover page to ICS.	
5	IS 12327 (Part 3) : 1989	Specification for data interchange on 130 mm double sided 3.8 tpm high density flexible disk cartridge using 3 frequency modulation recording at 13 262 ftprad (Part 3 Track	ISO 8630-3: 1987 'Information processing. Data interchange on 130 mm (5.25 in) flexible disk cartridges using modified frequency modulation recording at 13 262 ftprad on 80 tracks on	IS 12327 (Part 3): 1989 is an identical adoption of ISO 8630-3: 1987. As the base ISO standard has not yet been revised /amended, the Indian Standard IS 12327 (Part 3): 1989 may be considered for reprinting to change the UDC in cover page to ICS.	

		Format B For 80 Tracks)	each side - Part 3 : Track format B for 80 tracks'		
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