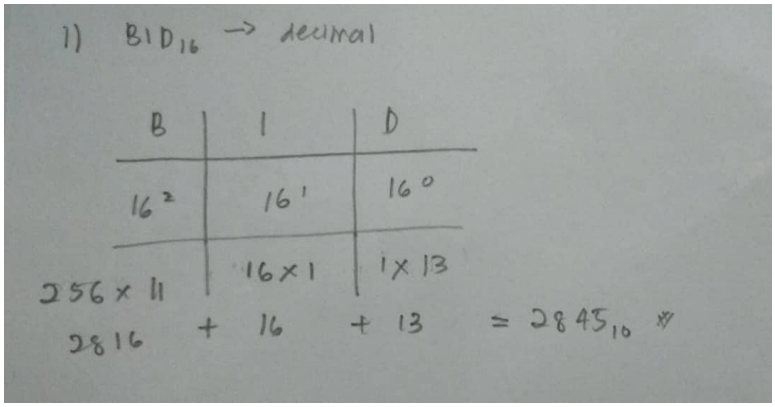
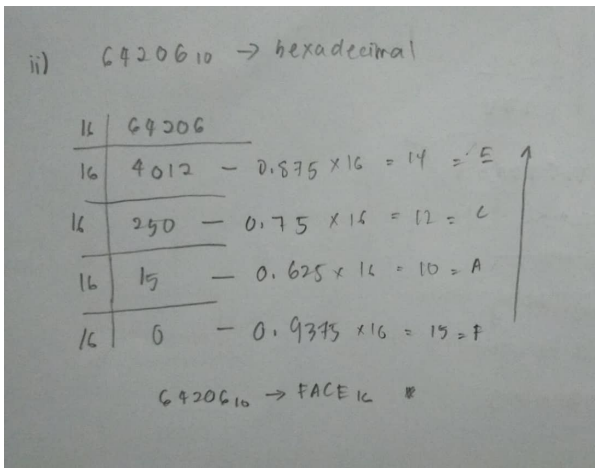
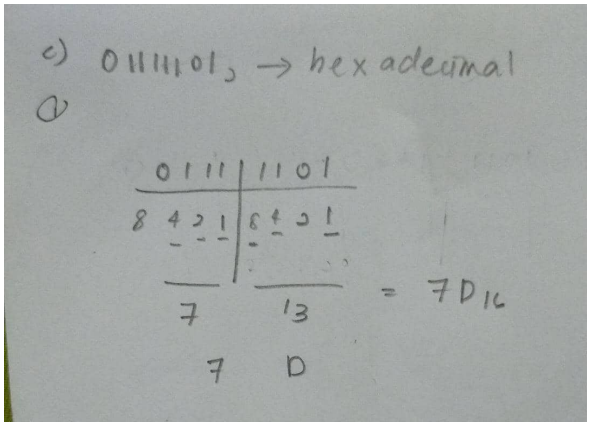
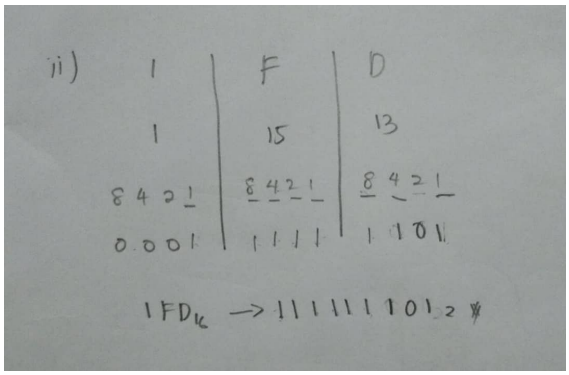
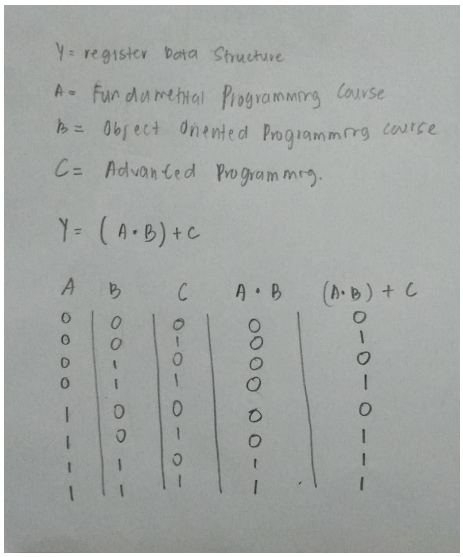
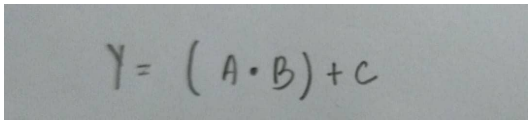
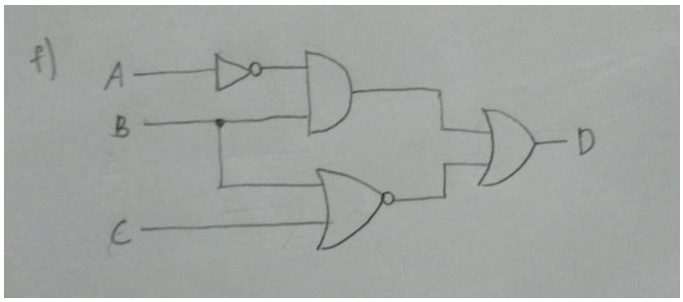
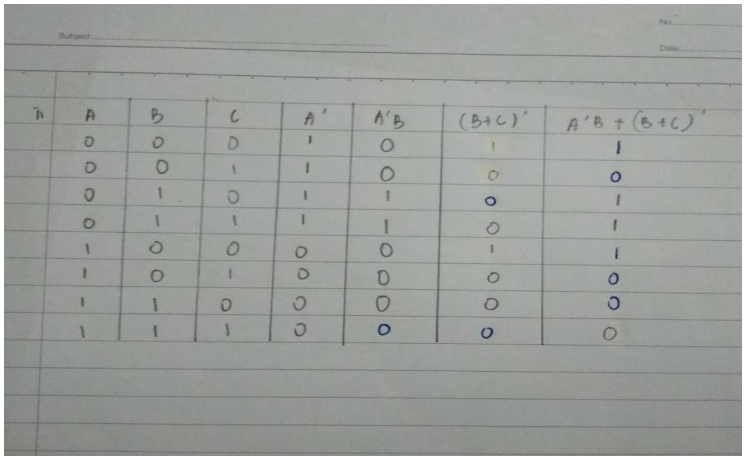
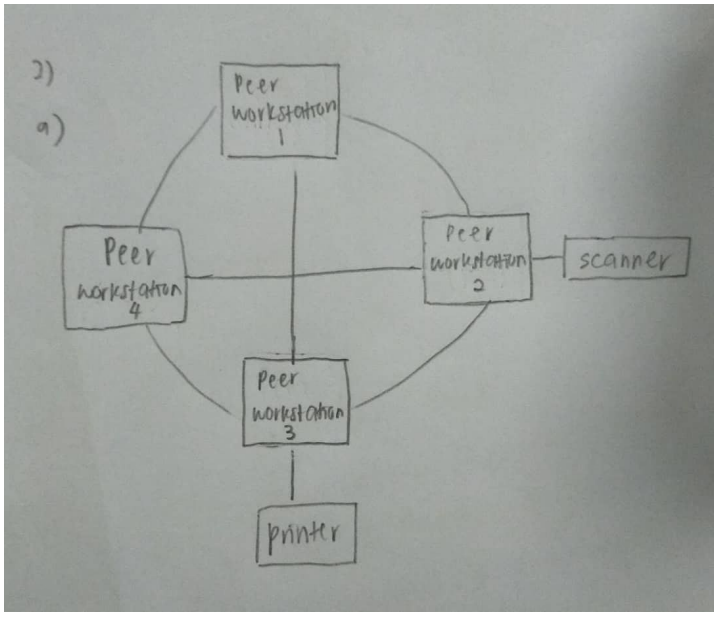
Suggested Scheme PSPM I SC015 2018/2019		
Section A	**Answer**	**Marks**
1(a)	Output Process Storage Input	/4
1(b)	i) computer can only read two digits (1 and 0) - **easily represented by electronic device** ii) 1 and 0 is natural language of a computer - **fewer computation** iii) represent the electronic status of the bits in memory - **less computational error**	/3
1(c)	ASCII : 0-255 UNICODE : 0-65535 EBCDIC : 0-255	/3
1(d)	NAND NOR XOR	/3
2(a)	Wired network : Wired connections, a computer or mobile service physically attaches via cables to a communication device, such as a modem that transmits data and other items to the Internet. Device : Router/cable modem *** accept any reasonable answer* Wireless network : Wireless connections,mobile computers and devices incude the necessary built in technology,wireless modem or other communication device that transmits data and other items to be internet wirelessly. Device : Wireless modem/Wireless Access Point (WAP) *** accept any reasonable answer*	/4
2(b)	Peer-to-Peer Simple, inexpensive network that typically connects fewer than 10 computers where each computer (peer) has equal sharing of hardware,data or information with other computers on the network. Client/Server Complicated, expensive. One or more computers act as a server and the other computer on the network requests services from the server.	/2
2(c)	Local Area Network : A network that connects computers and devices in a limited geographical area.	/2

	Wide Area Network : A network that covers a large geographical area.	
2(d)	Internet : A worldwide collection of networks that connects millions of businesses,government agencies, educational institutions and individuals. Web : Referred formally as World Wide Web (www) is collection of information which is accessed via the Internet	/2
2(e)	i) easy to promote business via social media ii) can easily access the information of the company's bank account anytime.	/2
2(f)	Intranet : can only be accessed by the employees within the organization Extranet : can only be accessed by employees within the organization, and suppliers,vendors,partners and customers outside the organization.	/2
2(g)	Communication device : Cable modem Transmission device : Coaxial cable Communication device : Wireless modem Transmission device : Radio signal	/4
2(h)	The IPv4 is not valid because the number in one of the groups has exceeded the range of the decimal number of IPv4 addresses which is from 0 to 255.	/2
2(i)	Can represents more than 340 undecillion possible addresses which ipv4 can’t accommodate	/1
2(j)	Government : gov Non-profit : org	/2
3(a)	i) use meaningful subject lines ii) be polite and avoid offensive language iii) do not use all capital letters	/3
3(b)	Provide moral guidelines to users that oversee the use of computers and information systems .	/1
3(c)	Intellectual Property Rights : the rights to which creators are entitled for their works Information Privacy : refers to the right of individuals and companies to deny or restrict the collection and use of information about them.	/4
4(a)	A : planning B : analysis	/4

	C: implementation D : maintenance	
4(b)	Assembly language, high level language , machine language .	/3
4(c)	Assembler : a program that translates a program written in assembly language into an equivalent program in machine language. Compiler : a language translator converts an entire program into machine language before executing it.	/4
Section B	**Answer**	**Marks**
1(a)	Input : insert marks for quizzes, assignments and group projects. Process : add the marks for quizzes,assignments and group projects. Output : display the total mark of the quizzes,assignments and group project.	/3
1(b)(i)		/5
1(b)(ii)		

1(c)(i)		/5
1(c)(ii)		
1(d)	8 characters x 8 bits = 64 bits 9 characters x 8 bits = 72 bits	/2
1(e)(i)		/4
1(e)(ii)		/2

1(f)(i)		/5
1(f)(ii)		/4
2(a)		/6
2(b)	Type of Network : WAN Advantages : i) allow users on the network to share resources in a wide geographical area ii) reduce cost because hardware can be shared.	/4

<table>
<tr><td></td><td>Type of Network : LAN
Advantages :
i) allow users on the network to share resources in a limited geographical area
ii) reduce cost because resources can be shared.</td><td></td></tr>
<tr><td colspan="3"></td></tr>
<tr><td>3(a)</td><td>Non-ethical
Messages must be kept in brief with proper grammar,spelling and punctuation according to netiquette.</td><td>/2</td></tr>
<tr><td>3(b)</td><td>Information accuracy
Green computing</td><td>/2</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td>4(a)</td><td><table><tr><td>Activity</td><td>SDLC Phase</td></tr><tr><td>Developing a storyboard</td><td>Design</td></tr><tr><td>Train the users</td><td>Implementation</td></tr><tr><td>Form website development team</td><td>Planning</td></tr><tr><td>Make changes to the websute when it is necessary</td><td>Maintenance</td></tr><tr><td>Interview the client regarding details of the website</td><td>Analysis</td></tr><tr><td>Prioritise website project request</td><td>Planning</td></tr></table></td><td>/6</td></tr>
<tr><td>4(b)</td><td>Program A to Program B - Assembler
Program C to Program A - None
Program C to Program B - Interpreter</td><td>/3</td></tr>
<tr><td>4(c)</td><td>Object - oriented
Procedural</td><td>/2</td></tr>
<tr><td colspan="3">END OF QUESTION PAPER</td></tr>
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