## CSCI 4333 Design of Database Systems Spring 2025 Suggested Solution to Section 1 Mid-Term Examination

(1) For example (types not needed):



(2) For:



Relation	R( <u>A</u> , B, D)	Relation	S( <u>D</u> , F)
[CK] (1) A		[CK] (1) D, (2) F	
[FK] (1) D references S(D)		[FK]	
		[Nullable]	
[Nullable] B		[Non-nullable] D, F	
[Non-nullable] A, D		[Note]	

INote]RelationT(T_Ld, C, D, Z_T_d)Relation $W(W_Ld, A, T_d)$ [CK] (1) T_d[CK] (1) T_d[CK] (1) W_d, (2) A, T_d[FK] (1) D references S(D), (2) Z_T_d[CK] (1) W_d, (2) A, T_d[FK] (1) D references T(T_d)[CK] (1) K_references R(A), (2) T_d references[FK] (1) A references R(A), (2) T_d references[Nullable] D, Z_T_Id[Nullable] T_d, C[Nullable][Non-nullable] W_d, A, T_d[Non-nullable] T_d, C[Non-nullable] W_d, A, T_d[Note] (1) W_d is created as the surrogateprimary key.RelationSE(SE_Id, D, E)Relation[CK] (1) SE_Id, (2) D, E[CK][FK][Note] (1) D references S(D)[FK][Nullable][Note] (1) SE_Id is created as the surrogateprimary key.[Note] (1) SE_Id is created as the surrogateprimary key.[Note] (1) SE_Id is created as the surrogate(3)(a)(b) T (c) T (d) T (e) T(4)(a)SELECT DISTINCT CONCAT(s.fname, '', s.Iname) AS student,e.classid, e.gradeFROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)WHERE s.major = 'CSCI';(b)SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.Iname) AS studentFROM student AS s INNER JOIN enroll AS e 2 ON (s.stuld = e1.stuld)INNER JOIN enroll AS e 2 ON (s.stuld = e2.stuld)WHERE e1.grade = 'A'AND e2.grade = 'BA':					
Relation $ T[\underline{\Gamma}, \underline{L}, C, D, Z, \underline{\Gamma}, \underline{L}]$ Relation $ W(\underline{W}, \underline{L}, A, \underline{\Gamma}, \underline{L}]$ $[CK]$ (1) $T_i$ d $[CK]$ (1) $T_i$ d $[CK]$ (1) $W_i$ d, (2) $A, \underline{T}_i$ d $[FK]$ (1) $D$ references S(D), (2) $Z_i \underline{T}_i$ d $[CK]$ (1) $W_i$ d, (2) $A, \underline{T}_i$ d $[FK]$ (1) D references S(D), (2) $Z_i \underline{T}_i$ d $[FK]$ (1) A references R(A), (2) $\underline{T}_i$ d references $[Nullable]$ $T_i$ d. $[Nullable]$ $[Nullable]$ $[Non-nullable]$ T_id. C $[Nullable]$ $[Non-nullable]$ $W_id. A, \underline{T}_id[Note] (1) \underline{T}_id is created as the surrogateprimary key.Relation\underline{SE(SE \ Id. D, E)}Relation[KK] (1) D references S(D)[FK][Nullable][Nullable][Note] (1) \underline{SE}_id, D, E[CK][Note] (1) \underline{SE}_id is created as the surrogateprimary key.[Nullable][Note] (1) \underline{SE}_id is created as the surrogateprimary key.[Nullable][Note] (1) \underline{SE}_i (1) \underline{F} (m) \underline{F}[Note] (1) \underline{SE}_i (1) \underline{F} (m) \underline{F}(3)(a)(a)\underline{F} (b) \underline{T} (c) \underline{T} (d) \underline{T} (e) \underline{T} (j) \underline{F}(4)(a)\underline{SELECT DISTINCT CONCAT(s.fname, '', s.Iname) AS student,\underline{e.classid}, e.gradeFROM student As s INNER JOIN enroll AS e ON (s.stuid = e.stuid)WHERE e.grade = 'A'AND e2 create = 'Be':(b)$	[Note]				
[CK] (1) T_id[CK] (1) W_id, (2) A, T_id[FK] (1) D references S(D), (2) Z_T_id[FK] (1) A references R(A), (2) T_id referencesreferences T(T_id)[Nullable] D, Z_T_id[Nullable] T_id, C[Non-nullable] W_id, A, T_id[Note] (1) T_id is created as the surrogate[Non-nullable] W_id, (2) A, T_idprimary key.[Note] (1) W_id is created as the surrogateprimary key.[Note] (1) W_id is created as the surrogate[CK] (1) SE_id, (2) D, E[FK][RK] (1) D references S(D)[FK][Nullable][Non-nullable] SE_id, D, E[Note] (1) SE_id is created as the surrogateprimary key.[Non-nullable][Note] (1) SE_id is created as the surrogateprimary key.	<b>Relation</b> T( <u>T_Id</u> , C, D, Z_T_Id)	<b>Relation</b> W( <u>W_Id</u> , A, T_Id)			
[FK] (1) D references S(D), (2) Z_T_Id       [FK] (1) A references R(A), (2) T_Id references         references T(T_Id)       [Nullable]       [Nullable]         [Nullable] D, Z_T_Id       [Nullable]       [Nullable]         [Note] (1) T_Id is created as the surrogate       [Note] (1) W_Id is created as the surrogate         primary key.       primary key.         Relation       SE(SE_Id, D, E)       Relation         [CK] (1) SE_Id, (2) D, E       [CK]         [Nullable]       [Non-nullable]       [KK]         [Nullable]       [Note]       [Non-nullable]         [Note] (1) SE_Id, (2) D, E       [CK]       [KK]         [Nullable]       [Non-nullable]       [Non-nullable]         [Note] (1) SE_Id is created as the surrogate       [Note]         primary key.       [Nullable]       [Non-nullable]         (3)       (a)       F       (b) T       (c) T       (d) T       (e) T         (4)       (a)       SELECT DISTINCT CONCAT(s.fname, '', s.Iname) AS student,       e.classid, e.grade       FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)         WHERE s.major = 'CSCI';       (b)       SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.Iname) AS student       FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld)         INNER JOIN enroll AS e2 ON (s.stuld =	[CK] (1) T_Id	[CK] (1) W_Id, (2) A, T_Id			
references T(T_ld) T(T_ld) [Nullable] D, Z_T_ld [Nullable] [Non-nullable] T_ld, C [Nullable] [Non-nullable] T_ld, C [Non-nullable] W_ld, A, T_ld [Non-nullable] (I) V_ld is created as the surrogate primary key. Primary key. [CK] (1) SE_ld, (2) D, E [CK] [Nullable] [Non-nullable] SE_ld, D, E [CK] [Nullable] [Non-nullable] SE_ld, D, E [Non-nullable] [Non-surrogate primary key. [Note]	[FK] (1) D references S(D), (2) Z_T_Id	[FK] (1) A references R(A), (2) T_Id references			
[Nullable] D, Z_T_Id       [Nullable]         [Non-nullable] T_Id, C       [Non-nullable] W_Id, A, T_Id         [Note] (1) T_Id is created as the surrogate       primary key.         Relation       SE(SE Id, D, E)       Relation         [CK] (1) SE_Id, (2) D, E       [FK]       [CK]         [FK] (1) D references S(D)       [Nullable]       [Non-nullable]         [Non-nullable] SE_Id, D, E       [Nullable]         [Non-nullable] SE_id, D, F       [Non-nullable]         [Note] (1) SE_id, Screated as the surrogate       [Non-nullable]         [Note] (1) SE_id, Screated as the surrogate       [Non-nullable]         [Note] (1) SE_id, Screated as the surrogate       [Non-nullable]         [	references T(T_Id)	T(T_Id)			
[Nullable] D, Z_T_d       [Nullable]         [Non-nullable] T_d, C       [Non-nullable] W_1d, A, T_1d         [Note] (1) T_d is created as the surrogate       [Note] (1) W_d is created as the surrogate         primary key.       [Relation         Relation       SE(SE_1d, D, E)         Relation       SE(SE_1d, D, E)         [CK] (1) SE_id, (2) D, E       [CK]         [FK] (1) D references S(D)       [FK]         [Nullable]       [Nullable]         [Note] (1) SE_id is created as the surrogate       [Non-nullable]         [Note] (1) SE_id is created as the surrogate       [Non-nullable]         [Note] (1) SE_id is created as the surrogate       [Non-nullable]         [Note] (1) SE_id is created as the surrogate       [Non-nullable]         [Note] (1) SE_id is created as the surrogate       [Note]         [Note] (1) SE_id is created as the surrogate       [Note]         [Note] (1) SE_id is created as the surrogate       [Note]         [Note] (1) SE_id is created as the surrogate       [Note]         [Note] (1) SE_id is created as the surrogate       [Note]         [Note] (1) SE_id is created as the surrogate       [Note]         [Note] (1) SE_id is created as the surrogate       [Note]         (a)       SELECT DISTINCT CONCAT(s.fname, '', s.lname) AS student,					
[Non-nullable] Y_ld, Z       [Non-nullable] Y_ld, A, T_ld         [Note] (1) T_ld is created as the surrogate       [Note] (1) W_ld is created as the surrogate         primary key.       Relation       SE(SE_ld, D, E)       Relation         [CK] (1) SE_ld, (2) D, E       [CK]       [FK]         [Nullable]       [Non-nullable] SE_Id, D, E       [CK]         [Note] (1) SE_ld is created as the surrogate       [Non-nullable]         [Note] (1) SE_ld is created as the surrogate       [Non-nullable]         [Note] (1) SE_ld is created as the surrogate       [Non-nullable]         [Note] (1) SE_ld is created as the surrogate       [Non-nullable]         [Note] (1) SE_ld is created as the surrogate       [Non-nullable]         [Note] (1) SE_ld is created as the surrogate       [Non-nullable]         [Note] (1) SE_ld is created as the surrogate       [Non-nullable]         [Note] (1) SE_ld is created as the surrogate       [Non-nullable]         [Note] (1) SE_ld is created as the surrogate       [Non-nullable]         [Note] (1) SE_ld is created as the surrogate       [Note]         [Note] (1) SE_ld is created as the surrogate       [Note]         [Note] (1) SE_ld is created as the surrogate       [Note]         [Note] (1) SE_ld is created as the surrogate       [Note]         [A]       [Note] Third is surdent AS is is is is cr	[Nullable] D, Z_T_ld	[Nullable]			
[Note] (1) T_Ici is created as the surrogate   primary key.   Relation   SE(SE_Id, D, E)   [CK] (1) SE_Id, (2) D, E   [CK] (1) SE_Id, (2) D, E   [INullable]   [Non-nullable] SE_Id, D, E   [Non-nullable] SE_Id, D, E   [Note] (1) SE_Id is created as the surrogate   primary key.     [Note] (1) SE_Id, D, E   [Note] (1) SE_Id, D, E   [Non-nullable] SE_Id, D, E   [Note] (1) SE_Id is created as the surrogate   primary key.     (3)   (a) F (b) T   (c) T (d) T   (f) F (g) T   (h) T (i) T   (j) F   (k) T (l) F   (q)   (a)   SELECT DISTINCT CONCAT(s.fname, '', s.lname) AS student,   e.classid, e.grade   FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)   WHERE s.major = 'CSCI';   (b)   SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.lname) AS student   FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld)   INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld)   WHERE e1.grade = 'A'   AND e2.erade = 'B+':	[Non-nullable] T_Id, C	[Non-nullable] W_Id, A, T_Id			
primary key.     primary key.       Relation     SE(SE_Id, D, E)     Relation       [CK] (1) SE_id, (2) D, E     [CK]     [CK]       [FK] (1) D references S(D)     [FK]       [Nullable]     [Non-nullable] SE_Id, D, E     [Nullable]       [Note] (1) SE_id is created as the surrogate primary key.     [Note]       (3)     (a) F     (b) T     (c) T     (d) T     (e) T       (f) F     (g) T     (h) T     (i) T     (j) F       (k) T     (i) F     (m) F       (4)     (a)       SELECT DISTINCT CONCAT(s.fname, '', s.Iname) AS student, e.classId, e.grade       FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)       WHERE s.major = 'CSCI';       (b)       SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.Iname) AS student       FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld)       INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld)       WHERE e1.grade = 'A'       AND e2.erade = 'B+':	[Note] (1) T_Id is created as the surrogate	[Note] (1) W_Id is created as the surrogate			
Relation       SE(SE_Id, D, E)       Relation         [CK] (1) SE_Id, (2) D, E       [CK]         [FK] (1) D references S(D)       [FK]         [Nullable]       [Nullable]         [Non-nullable] SE_Id, D, E       [Non-nullable]         [Note] (1) SE_Id is created as the surrogate primary key.       [Note]         (3)       (a)         (a)       F       (b)       T       (c)       T       (d)       T       (e)       T         (4)       (a)       SELECT DISTINCT CONCAT(s.fname, '', s.lname) AS student, e.classid, e.grade       e.stuid)       WHERE s.major = 'CSCI';         (b)       SELECT DISTINCT s.stuid, CONCAT(s.fname, '', s.lname) AS student FROM student AS s INNER JOIN enroll AS e ON (s.stuid = e.stuid)       WHERE e1.grade = 'A'         MURE PLANE       SINNER JOIN enroll AS e ON (s.stuid = e1.stuid)       INNER JOIN enroll AS e2 ON (s.stuid = e1.stuid)         WHERE e1.grade = 'A'       AND e2.grade = 'B+';       AND e2.grade = 'B+';	primary key.	primary key.			
[CK] (1) SE_Id, (2) D, E       [CK]         [FK] (1) D references S(D)       [FK]         [Nullable]       [Nullable] SE_Id, D, E       [Nullable]         [Note] (1) SE_Id is created as the surrogate primary key.       [Nullable]         (3)       (a) F (b) T (c) T (d) T (e) T         (b) T (l) F (g) T (h) T (i) T (j) F         (ck) T (l) F (m) F         (d)         SELECT DISTINCT CONCAT(s.fname, '', s.lname) AS student, e.classid, e.grade         FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)         WHERE s.major = 'CSCI';         (b)         SELECT DISTINCT s.stuid, CONCAT(s.fname, '', s.lname) AS student FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)         WHERE s.major = 'CSCI';         (b)         SELECT DISTINCT s.stuid, CONCAT(s.fname, '', s.lname) AS student FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld)         INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld)         WHERE e1.grade = 'A'         AND e2.grade = 'B+';	Relation SE( <u>SE_Id</u> , D, E)	Relation			
[FK] (1) D references S(D)       [FK]         [Nullable]       [Non-nullable] SE_Id, D, E         [Note] (1) SE_Id is created as the surrogate primary key.       [Note]         (3)       (a) F (b) T (c) T (d) T (e) T         (a) F (g) T (h) T (i) T (j) F         (b) T (l) F (m) F         (c) SELECT DISTINCT CONCAT(s.fname, '', s.lname) AS student, e.classid, e.grade         FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)         WHERE s.major = 'CSCI';         (b)         SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.lname) AS student FROM student AS s INNER JOIN enroll AS e 1 ON (s.stuld = e1.stuld)         WHERE e1.grade = 'A'         ADD e2.grade = 'A'	[CK] (1) SE_Id, (2) D, E	[CK]			
[Nullable] [Non-nullable] SE_Id, D, E [Note] (1) SE_Id is created as the surrogate primary key. (3) (a) F (b) T (c) T (d) T (e) T (f) F (g) T (h) T (i) T (j) F (k) T (l) F (m) F (4) (a) SELECT DISTINCT CONCAT(s.fname, '', s.lname) AS student, e.classid, e.grade FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld) WHERE s.major = 'CSCI'; (b) SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.lname) AS student FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e.stuld) WHERE e1.grade = 'A' AND e2 grade = 'A'	[FK] (1) D references S(D)	[FK]			
[Nullable]       [Nullable]         [Note] (1) SE_Id is created as the surrogate primary key.       [Non-nullable]         (3)       (a) F (b) T (c) T (d) T (e) T         (f) F (g) T (h) T (i) T (j) F         (k) T (l) F (m) F         (4)         (a)         SELECT DISTINCT CONCAT(s.fname, '', s.lname) AS student, e.classid, e.grade         FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)         WHERE s.major = 'CSCI';         (b)         SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.lname) AS student         FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld)         WHERE e1.grade = 'A'         AND e2.grade = 'A'					
[Non-nullable] SE_Id, D, E [Note] (1) SE_Id is created as the surrogate primary key. (3) (a) F (b) T (c) T (d) T (e) T (f) F (g) T (h) T (i) T (j) F (k) T (l) F (m) F (4) (a) SELECT DISTINCT CONCAT(s.fname, '', s.lname) AS student, e.classid, e.grade FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld) WHERE s.major = 'CSCI'; (b) SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.lname) AS student FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld) WHERE s.major = 'CSCI'; (b) SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.lname) AS student FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld) INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld) WHERE e1.grade = 'A' AND e2.grade = 'A'	[Nullable]	[Nullable]			
[Note] (1) SE_Id is created as the surrogate primary key.       [Note]         (3)       (a) F (b) T (c) T (d) T (e) T         (a) F (b) T (c) T (d) T (i) T (j) F         (b) T (l) F (m) F         (c) Restrict Concert(s.fname, '', s.lname) AS student, e.classid, e.grade         FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)         WHERE s.major = 'CSCI';         (b)         SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.lname) AS student         FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)         WHERE s.major = 'CSCI';         (b)         SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.lname) AS student         FROM student AS s INNER JOIN enroll AS e 1 ON (s.stuld = e1.stuld)         INNER JOIN enroll AS e 2 ON (s.stuld = e2.stuld)         WHERE e1.grade = 'A'         AND e2.grade = 'A'	[Non-nullable] SE_Id, D, E	[Non-nullable]			
(3)         (a) F       (b) T       (c) T       (d) T       (e) T         (f) F       (g) T       (h) T       (i) T       (j) F         (k) T       (l) F       (m) F         (4)       (a)         SELECT DISTINCT CONCAT(s.fname, '', s.lname) AS student, e.classId, e.grade         FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)         WHERE s.major = 'CSCI';         (b)         SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.lname) AS student         FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld)         INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld)         WHERE e1.grade = 'A'         AND e2.grade = 'A'	[Note] (1) SE_Id is created as the surrogate	[Note]			
<ul> <li>(3)</li> <li>(a) F (b) T (c) T (d) T (e) T</li> <li>(f) F (g) T (h) T (i) T (j) F</li> <li>(k) T (l) F (m) F</li> <li>(4)</li> <li>(a)</li> <li>SELECT DISTINCT CONCAT(s.fname, '', s.lname) AS student, e.classid, e.grade</li> <li>FROM student AS s INNER JOIN enroll AS e ON (s.stuid = e.stuid)</li> <li>WHERE s.major = 'CSCI';</li> <li>(b)</li> <li>SELECT DISTINCT s.stuid, CONCAT(s.fname, '', s.lname) AS student</li> <li>FROM student AS s INNER JOIN enroll AS e1 ON (s.stuid = e1.stuid) INNER JOIN enroll AS e2 ON (s.stuid = e2.stuid)</li> <li>WHERE e1.grade = 'A'</li> <li>AND e2.grade = 'B+';</li> </ul>	primary key.				
<ul> <li>(3)</li> <li>(a) F (b) T (c) T (d) T (e) T</li> <li>(f) F (g) T (h) T (i) T (j) F</li> <li>(k) T (l) F (m) F</li> <li>(4)</li> <li>(a)</li> <li>SELECT DISTINCT CONCAT(s.fname, '', s.lname) AS student, e.classid, e.grade</li> <li>FROM student AS s INNER JOIN enroll AS e ON (s.stuid = e.stuid)</li> <li>WHERE s.major = 'CSCI';</li> <li>(b)</li> <li>SELECT DISTINCT s.stuid, CONCAT(s.fname, '', s.lname) AS student FROM student AS s INNER JOIN enroll AS e1 ON (s.stuid = e1.stuid) INNER JOIN enroll AS e2 ON (s.stuid = e2.stuid)</li> <li>WHERE e1.grade = 'A'</li> <li>AND e2.grade = 'A'</li> </ul>					
<ul> <li>(3)</li> <li>(a) F (b) T (c) T (d) T (e) T</li> <li>(f) F (g) T (h) T (i) T (j) F</li> <li>(k) T (l) F (m) F</li> <li>(4)</li> <li>(a)</li> <li>SELECT DISTINCT CONCAT(s.fname, '', s.lname) AS student, e.classId, e.grade</li> <li>FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)</li> <li>WHERE s.major = 'CSCI';</li> <li>(b)</li> <li>SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.lname) AS student</li> <li>FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld)</li> <li>INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld)</li> <li>WHERE e1.grade = 'A'</li> <li>AND e2.grade = 'A';</li> </ul>					
(3)       F       (b)       T       (c)       T       (d)       T       (e)       T         (f)       F       (g)       T       (h)       T       (i)       T       (j)       F         (k)       T       (l)       F       (m)       F       (d)       (d)       F         (4)       (a)       SELECT DISTINCT CONCAT(s.fname, '', s.lname) AS student, e.classId, e.grade       FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)       WHERE s.major = 'CSCI';         (b)       SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.lname) AS student       FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld)       INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld)         WHERE e1.grade = 'A'       AND e2.grade = 'B+';       AND e2.grade = 'B+';       AND e2.grade = 'B+';	(2)				
(a)       F       (b)       T       (c)       T       (d)       T       (e)       T         (f)       F       (g)       T       (h)       T       (i)       T       (j)       F         (k)       T       (l)       F       (m)       F       (ii)       T       (j)       F         (4)       (a)       SELECT DISTINCT CONCAT(s.fname, '', s.lname) AS student, e.classId, e.grade       FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)       WHERE s.major = 'CSCI';         (b)       SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.lname) AS student       FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld)         INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld)       INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld)         WHERE e1.grade = 'A'       AND e2.grade = 'B+':	(3)				
<pre>(d) I (b) I (b) I (c) I (</pre>	(a) F (b) T (c) T	Т (а) Т (b)			
<pre>(i) i (i) i (ii) (i</pre>	(d) $\Gamma$ (b) $\Gamma$ (c) $\Gamma$ (f) $F$ (g) $T$ (h) $T$	$\begin{array}{cccc} (i) & T & (i) & F \\ \end{array}$			
<ul> <li>(4)</li> <li>(a)</li> <li>SELECT DISTINCT CONCAT(s.fname, '', s.lname) AS student, e.classid, e.grade</li> <li>FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)</li> <li>WHERE s.major = 'CSCI';</li> <li>(b)</li> <li>SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.lname) AS student</li> <li>FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld) INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld)</li> <li>WHERE e1.grade = 'A' AND e2.grade = 'B+':</li> </ul>	(k) T (l) E (m) E				
<ul> <li>(4)</li> <li>(a)</li> <li>SELECT DISTINCT CONCAT(s.fname, ' ', s.lname) AS student, e.classId, e.grade</li> <li>FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)</li> <li>WHERE s.major = 'CSCI';</li> <li>(b)</li> <li>SELECT DISTINCT s.stuld, CONCAT(s.fname, ' ', s.lname) AS student</li> <li>FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld) INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld)</li> <li>WHERE e1.grade = 'A' AND e2.grade = 'B+';</li> </ul>					
<ul> <li>(a)</li> <li>SELECT DISTINCT CONCAT(s.fname, '', s.Iname) AS student, e.classId, e.grade</li> <li>FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)</li> <li>WHERE s.major = 'CSCI';</li> <li>(b)</li> <li>SELECT DISTINCT s.stuld, CONCAT(s.fname, '', s.Iname) AS student</li> <li>FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld) INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld)</li> <li>WHERE e1.grade = 'A' AND e2.grade = 'B+':</li> </ul>	(4)				
SELECT DISTINCT CONCAT(s.fname, ' ', s.lname) AS student, e.classId, e.grade FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld) WHERE s.major = 'CSCI'; (b) SELECT DISTINCT s.stuld, CONCAT(s.fname, ' ', s.lname) AS student FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld) INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld) WHERE e1.grade = 'A' AND e2.grade = 'B+':	(a)				
SELECT DISTINCT CONCAT(s.fname, ' ', s.lname) AS student, e.classId, e.grade FROM student AS s INNER JOIN enroll AS e ON (s.stuId = e.stuId) WHERE s.major = 'CSCI'; (b) SELECT DISTINCT s.stuId, CONCAT(s.fname, ' ', s.lname) AS student FROM student AS s INNER JOIN enroll AS e1 ON (s.stuId = e1.stuId) INNER JOIN enroll AS e2 ON (s.stuId = e2.stuId) WHERE e1.grade = 'A' AND e2.grade = 'B+':					
<ul> <li>e.classid, e.grade</li> <li>FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld)</li> <li>WHERE s.major = 'CSCI';</li> <li>(b)</li> <li>SELECT DISTINCT s.stuld, CONCAT(s.fname, ' ', s.lname) AS student</li> <li>FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld)</li> <li>INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld)</li> <li>WHERE e1.grade = 'A'</li> <li>AND e2.grade = 'B+':</li> </ul>	SELECT DISTINCT CONCAT(s.fname, ' ', s.Iname) AS student,				
<pre>FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld) WHERE s.major = 'CSCI'; (b) SELECT DISTINCT s.stuld, CONCAT(s.fname, ' ', s.lname) AS student FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld)</pre>	e.classId, e.grade				
<pre>WHERE s.major = 'CSCI'; (b) SELECT DISTINCT s.stuld, CONCAT(s.fname, ' ', s.lname) AS student FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld)</pre>	FROM student AS s INNER JOIN enroll AS e ON (s.stuId = e.stuId)				
(b) SELECT DISTINCT s.stuld, CONCAT(s.fname, ' ', s.lname) AS student FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld) INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld) WHERE e1.grade = 'A' AND e2.grade = 'B+':	WHERE s.major = 'CSCI';				
<pre>(b) SELECT DISTINCT s.stuld, CONCAT(s.fname, ' ', s.lname) AS student FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld)</pre>					
SELECT DISTINCT s.stuld, CONCAT(s.fname, ' ', s.Iname) AS student FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld) INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld) WHERE e1.grade = 'A' AND e2.grade = 'B+':	(b)				
SELECT DISTINCT s.stuld, CONCAT(s.fname, ' ', s.lname) AS student FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld) INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld) WHERE e1.grade = 'A' AND e2.grade = 'B+':					
FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld) INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld) WHERE e1.grade = 'A' AND e2.grade = 'B+':	SELECT DISTINCT s.stuld, CONCAT(s.fname, ' ', s.lname) AS student				
INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld) WHERE e1.grade = 'A' AND e2.grade = 'B+':	FROM student AS s INNER JOIN enroll AS e1 ON (s.stuld = e1.stuld)				
WHERE e1.grade = 'A' AND e2.grade = 'B+':	INNER JOIN enroll AS e2 ON (s.stuld = e2.stuld)				
AND e2.grade = 'B+':	WHERE e1.grade = 'A'				
	AND e2.grade = 'B+':				
	AND CZ. SI auc - DT,				
(c)	(c)				

SELECT DISTINCT s.stuld, CONCAT(s.fname, ' ', s.Iname) AS `student enrolled in classes by Mary Tran` FROM student AS s INNER JOIN enroll AS e ON (s.stuld = e.stuld) INNER JOIN class AS c ON (e.classId = c.classId) INNER JOIN faculty AS f ON (c.facId = f.facId) WHERE f.fName = 'Mary' AND f.LName = 'Tran';