



PARACHUTIST

INFORMATION

MANUAL

PART 4B

COMPETITION RULES

Canopy Formation

MAY 2018

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Canadian Sport Parachuting Association
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ACKNOWLEDGEMENTS

The CSPA Judging Committee has prepared the Competition Rules under the authority granted to it by the CSPA Board of Directors.

Prior to 2016, this manual was developed and prepared by the CSPA Competition and National Teams Committee.

LIST OF REVISIONS / CHANGES

<u>Date</u>	<u>Section</u>
May 2018	Revision: sections 4.4.2., Appendix AA
March 2017	Revisions: sections 2.3.2., 3.5.4., 4.9.2., 4.10.3, 5.1.4., 5.2.4., and 5.2.5.
October 2016	Formatting
July 2016	Full Revision
June 2013	
June 2011	

CHAPTER 1 – CSPA AUTHORITY

- 1.1 The Event will be conducted in accordance with PIM4B - Competition Rules – General Section and Canopy Formation plus PIM 4A - Canadian National Parachuting Championships Hosting Manual. All participants accept and agree to abide by PIM 4B, PIM 4A and all other relevant CSPA regulations upon registration for the CNPC.

CHAPTER 2 – DEFINITIONS OF WORDS AND PHRASES USED IN THESE RULES

- 2.1. **FORMATION:** Consists of 2 or more jumpers and canopies linked by grips, correct or not.
- 2.2. **GRIP:** Consists of a hand hold or a foot hook on an "A" line or front riser so that a formation is built in accordance with the configurations as depicted in the dive pool.
- 2.3. **CONFIGURATIONS:**
- 2.3.1. **STACK:** The shoulder of the upper jumper must be above the upper surface of the lower canopy. A grip must be on an "A" line attached to the centre cell.
- 2.3.2. **STAIRSTEP:** The shoulder of the upper jumper must be above the upper surface of the lower canopy. The grip must only be on the outside "A" line of the end cell. The grip must be taken with the inside foot; this may include an additional handhold, if desired.
- 2.3.3. **PLANE:** The head of the upper jumper must be below the lower surface of the lower canopy. A grip must be on a front riser or an "A" line attached to the centre cell.
- 2.3.4. **PLANE/STACK:** Plane, stack or any position on a riser or an "A" line attached to the centre cell between these configurations. A correct grip must be maintained.
- The above configurations only apply to complete formations.
- 2.4. **INTER:** The stage between two formations. An inter must be flown and remain intact with the correct grips.
- 2.5. **SEQUENCE:** A series of blocks and random formations that are designated by the draw.
- 2.6. **NV:** Formations, inters, or total separations not visible on screen due to meteorological conditions (such as rain, clouds, sun, etc.) or factors relating to the Videographer's video equipment that cannot be controlled.
- 2.7. **OMISSION:**
- (1) A formation or inter missing from the drawn sequence.
 - (2) No clear intent to build the correct formation or inter is seen, and another formation or inter is presented and there is an advantage to the team resulting from this substitution.
- 2.8. **WORKING TIME:** The working time begins at the moment of the first separation of a grip from the first formation whether correct or not, or 30 seconds after exit from the plane of the first team member, including the team's Videographer, whichever comes first.
- 2.9. **SCORING FORMATION:** is a formation which is correctly completed and clearly presented either as a random formation or within a block sequence as depicted in the dive pool, and which, apart from the first formation after exit, must be preceded by a correctly completed and clearly presented total separation or inter, as appropriate.

CHAPTER 3 – THE EVENTS

3.1. All Disciplines

The competition will comprise the following events:

- 2-Way Sequential Event – 8 rounds
- 4-Way Sequential Event – 8 rounds
- 4-Way Rotation Event – 8 rounds

3.2. Minimum Rounds

The minimum number of rounds required for a valid event is two rounds.

3.3. Objective of the Events

The objective of the events is for the team to complete as many scoring formations as possible within the working time, while correctly following the sequence or rotation for the round.

3.4. Performance Requirements

3.4.1. 2-way Sequential Event

Each round consists of a repeatable sequence drawn from the appropriate dive pool. Teams complete as many scoring formation as possible within working time, while correctly following the sequence for the round.

3.4.2. 4-way Sequential Event

Each round consists of a repeatable sequence drawn from the dive pool. Teams complete as many scoring formation as possible within working time, while correctly following the sequence for the round.

3.4.3. 4-way Rotation Event

Each round consists of successive 4-way plane/stack formations made by rotations. Rotations must be made by the top competitor in the complete formation dropping grips, flying to the bottom of the formation and again completing a 4-way plane/stack formation. The inter is the remaining correctly completed 3-way plane/stack formation.

3.5. Determination of Champions

3.5.1. The 2-Way Sequential Team whose total score in that event is highest will be declared 2-Way Sequential Team Champion.

3.5.2. The 4-Way Sequential Team whose total score in that event is highest will be declared 4-Way Sequential Team Champion.

3.5.3. The 4-Way Rotation Team whose total score in that event is highest will be declared 4-Way Rotation Team Champion.

3.5.4. Where only two rounds are completed, the team whose total score is the highest for those two rounds shall be the winner. If more than one team has the same total score, the team with highest score in either round shall have the higher placing. If a tie still remains the team with the fastest time for the last common scoring formation within working time in the last completed round, calculated to the second decimal point, shall have the higher placing.

3.5.5. Where more than two rounds are completed, and more than one team has the same total score the tie will be broken as follows:

- (1) Not Used
- (2) a tie break jump (if possible) for the first three (3) places only.
- (3) if a tie break jump is not possible, the higher placing will be given to the team that has the highest number of points in any completed round.
- (4) if a tie still remains the higher placing will be given to the team that has the fastest time (measured to hundredths of a second) for the last common scoring formation within working time in the last completed round.

3.5.5.1. Tied teams placed lower than third remain tied.

3.6. Medals

Gold, silver and bronze medals will be awarded to the first, second and third place winners (including properly registered alternate team member competitors) in all valid events subject to the citizenship restrictions in PIM4B – General Section Competition Rules 2.1 and with the following exceptions:

- a) where there are only three individuals or teams registered in an event, only gold and silver medals shall be awarded
- b) where there are only two individuals or teams registered in an event, only the gold medal will be awarded.

CHAPTER 4 – GENERAL RULES

4.1. Equipment

4.1.1. Canopy Formation may not be performed using a reserve parachute. Failure to observe this rule will be penalized according to PIM4B General Section Competition Rules 5.4

4.1.2. Competitors must carry the following equipment:

- (1) Each team member must carry a hook-knife for emergency use.
- (2) Each member of each team must carry a serviceable altimeter.

4.2. Meteorological Conditions

4.2.1. When air turbulence is apparent or clouds at lower altitudes affect visibility, the Meet Director may decide to raise the exit altitude. The Meet Director must inform all jumpers of the decision. This decision is not open to protest.

4.2.2. Teams may refuse to jump in rain or turbulent conditions. The Meet Director, and the Chief Judge by unanimous decision may decide to continue the event. If a team aborts a jump a second time for the same reason, that team will not jump that round and must be awarded the maximum or minimum score, whichever is worse.

4.2.3. Rain occurring any time after the first team member exits the aircraft is no grounds for protest.

4.2.4. Change in altitude ceiling: If the altitude ceiling changes such that the stipulated altitude cannot be achieved; the Meet Director will suspend jumping until the stipulated altitude can be achieved

4.3. Cessation of Working Time

All forms of Canopy Formation jumping must cease by 750 meters (~2500 ft). Failure to observe this rule will be penalized according to PIM4B General Section 5.4

4.4. Practicing of Other Rounds

After working time has elapsed, only the drawn sequence for that round may be performed. If any other canopy formation is performed the team will receive a score of zero for that round. The Organiser shall supply a camera and qualified person to monitor teams for this possible occurrence. This decision is no grounds for a protest.

4.4.1. The Chief Judge is responsible to approve the qualified person supplied by the Organiser to monitor that rule 4.4 is followed.

4.4.2. In the event that the CJ cannot approve the person supplied by the Organiser for pertinent reasons (e.g. person has other responsibilities or is not suitably qualified) the Organiser shall provide an alternative person.

4.5. The Draw

A public draw of the sequences and the jump order will be supervised by the Chief Judge. The teams will be given not less than two hours' knowledge of the results before the competition starts.

4.6. Practice Jumps

Practice jumps may not be made after the draw has been made public. If time allows these jumps may be assessed by the judges and, if assessed, the score shall be published.

4.7. Jump Order

The Chief Judge and the Event Judge will determine the manifest order of each team by blind draw. The drawn jump order will be used for all rounds. Time permitting, and at the discretion of the Meet Director, reverse order of ranking may be used for the final two rounds.

4.8. Exit Procedure

4.8.1. There is no limitation on the exit other than those imposed by the Chief Pilot for safety reasons. The pilot must maintain the altitude and direction until the aircraft is well clear of the jumpers.

4.8.2. Teams will be responsible for their own exits once the aircraft has commenced the jump run and the team has been cleared to exit.

4.8.3. The exit of the first team member must be clearly shown on the team's video recording. Failure to clearly show the exit of the first team member will result in a score of zero for that round.

4.8.4. The pilot chute must not be withdrawn from the equipment until the team member is clear of the aircraft.

4.9. Video Transmission and Recording

4.9.1. Each team shall provide the video evidence required to judge each round. Each Videographer must use the video transmission system provided by the Organiser.

4.9.2. The Organiser must provide the teams with a way of identification of the team showing the date, round, and team number to be recorded by the Videographer just before exit. The recording should continue with the jump without a stop in recording.

4.9.3. The video equipment must be able to deliver a High Definition 1080 type digital signal with a minimum frame rate of 25 frames per second, through a memory card (minimum class 10). The videographer is responsible for ensuring the compatibility of their video equipment with the scoring system.

4.9.4. As soon as possible after each jump is completed, the Videographer must deliver the video equipment (including the video used to record that jump) for dubbing at the designated dubbing station. The video evidence must remain available for viewing or download until all scores are posted as final.

4.9.5. Only one video recording will be dubbed and judged. Secondary video recordings may only be used in NV situations.

4.9.6. The dubbing station will be as close to the landing area as possible.

4.9.7. A Video Controller will be appointed by the organiser and approved by the Chief Judge prior to the start of the Official Training Jumps. Prior to the competition beginning, the Video Controller may inspect a team's video equipment to verify that it meets the performance requirements, as determined by him/her. Inspections that do not interfere with a team's performance may be made at any time during the competition, as determined by the Chief Judge. If any video equipment does not meet the performance requirements as determined by the Video Controller, this equipment will be deemed to be unusable for the competition.

4.9.8. A Video Review Panel (VRP) will be established prior to the start of the official training jumps, consisting of the Chief Judge, the Meet Director, and the Video Controller. Decisions rendered by the Video Review Panel shall be final and shall not be subject to protest or review by the Jury.

4.9.9. If the Video Review Panel determines that the video equipment has been deliberately tampered with, the team will receive no points for all competition rounds involved with this tampering.

4.10. Rejumps

4.10.1. In the case of an NV, the Video Review Panel will assess the conditions and circumstances surrounding that occurrence and may award a rejump. Should the Video Review Panel determine that there has been an intentional abuse of the rules by the team, or by the Videographer on behalf of the team, no rejump will be granted and they will receive zero points, for that jump.

4.10.2. Problems with a team's equipment are not reasons for a rejump, except as determined in an NV situation and in 4.10.3.

4.10.3. In the event of an equipment malfunction, only one rejump may be granted per team, per competition event. This rejump will not be granted if the team builds a complete formation (correct or not) at any time during the jump.

Evidence of the malfunction must be provided by the team. The Meet Director in conjunction with the Chief Judge will assess the conditions and circumstances surrounding the occurrence. A rejump will be granted unless it is determined that there was an intentional abuse of the rules by the team; in which case, no rejump will be granted and the team's score for that jump will be zero.

4.10.4. Contact or other means of interference between a team and its Videographer are no grounds for a rejump.

4.10.5. If a rejump is granted to a team which has requested it, the rejump must be made. If the team does not jump, it will receive minimum score for that jump.

4.11. Scoring

4.11.1. All formations and inter requirements must be completed and recorded in such a manner that the judges may determine that the required performance has been achieved.

Provision of the video evidence for judging purposes is the responsibility of the team.

4.11.2. If a competitor or team is disqualified for a jump, they will receive zero points for that jump.

CHAPTER 5 – RULES SPECIFIC TO THE EVENTS

5.1. 2-Way Sequential

5.1.1. Exit altitude shall be 2150 meters (~7000 ft) AGL with a working time of 60 seconds.

5.1.2. The draw of the sequences: Each round consists of five (5) formations that have been drawn from the dive pool of 12 formations (2 of each). After each sequence is drawn, the five (5) formations shall be returned to the dive pool so that they may be drawn again.

5.1.3. Scoring

Teams will be awarded one point for the first correct formation and subsequent correct formations that are preceded by total separation within the working time. Teams will not be awarded points for incorrect formations. There will be no penalty.

5.1.4. Omissions

For each omission of a formation in a round, the team will not score the point for the omitted formation, and an additional two points per omission will be deducted from that round as a penalty. However, the scoring will not be affected if the team goes back to correctly complete the omitted formation within working time. Formations built correctly after the omitted formation will be scored in the normal manner.

5.1.5. Each formation must be performed in accordance with the illustrations in the drawn Sequence. Jumper position for each random is set by the draw, i.e. the dark canopy position on the first formation built within a round must remain in the dark canopy position on all subsequent formations of that round. There must be release of all grips between each formation. No mirror formations are allowed. All formations shall be performed as shown in the dive pool, as seen from behind.

5.2. 4-Way Sequential

5.2.1. Exit altitude shall be 2750 meters (~9000 ft) AGL with a working time of 120 seconds.

5.2.2. The draw of the sequences: Each block sequence or random from the Dive Pool will be drawn only once for each competition. All rounds shall consist of four or five scoring formations; whichever number is reached first.

5.2.3. Scoring

Teams will be awarded one point for the first correctly completed formation and each subsequent correct formation or formations preceded by an inter correctly completed within the working time. Teams will not be awarded points for incorrect formations. There will be no penalty.

5.2.4. Omissions

For each omission of a formation in a round, the team will not score the point for the omitted formation, and an additional one point per omission will be deducted from that round as a penalty. However, the scoring will not be affected if the team goes back to correctly complete the omitted formation within working time. Formations built correctly after the omitted formation will be scored in the normal manner.

- (1) An attempt to complete a formation, although incorrect or incomplete, demonstrated by at least 3 canopies connected with grips, and in the formation required by the drawn sequence, will be judged as an incorrect formation, not as an omission.

5.2.5. An attempt to complete a formation, although incorrect or incomplete, demonstrated by at least three (3) canopies connected with grips, OR the two 2-way formations in an inter clearly attempting to build the formation required by the drawn sequence, will be judged as an incorrect formation, not as an omission.

5.2.6. Each formation and inter requirement must be performed in accordance with the drawn sequence. Where there is no inter requirement between formations, there must be release of all grips between all canopies at one point in time. Mirror images are acceptable for complete blocks and random formations. Formations need not be symmetrical. At the end of a sequence there must be release of all grips before restarting the sequence as drawn.

5.3. 4-Way Rotation

5.3.1. Exit altitude shall be 2500 meters (~8000 ft) AGL with a working time of 90 seconds.

5.3.2. Scoring

Teams will be awarded one point for the first correctly completed formation and every correctly completed 4-way plane/stack formation within the working time, according to the performance requirement. Team members rotating from the top of the plane/stack formation before the bottom team member has taken a grip will not receive credit for that formation. The following formation (the rebuild) shall be scored as zero (0) points, except for the formation following the first formation after the start of working time.

CHAPTER 6 – JUDGING RULES

6.1. Electronic Scoring

The judges may use an electronic scoring system to record their evaluation of the performance.

6.2. Start of Working Time

The judges shall start the timing when the first team member (including the team's Videographer) leaves the aircraft. At the end of working time, freeze frame of the video image shall be applied.

6.3. Number of Viewings

The judges will watch each performance once at normal speed. At the request of any working judge, a second viewing at normal speed or reduced speed at 70% may be made. A third view of part(s) of the jump can be conducted at normal or reduced speed at 70%, may only occur at the discretion of the Event Judge.

6.3.1. If, after all viewings are complete, and within 15 seconds of knowledge of the result, the Chief Judge, Event Judge or any Judge on the panel considers that an absolutely incorrect assessment has occurred, the Chief Judge or Event Judge will direct that only that part(s) of the jump in question be reviewed. If the review results in a minimum four to one judge decision by the Judges that an absolutely incorrect assessment has occurred on the part(s) of the jump in question, the score for the jump will be adjusted accordingly. Only one review is permitted for each jump.

6.4. Judging Panel

Each performance must be evaluated by a panel of five judges.

6.5. Assessments

A majority of Judges must agree in the evaluation in order to;

- credit the scoring formation, or
- assign an omission, or
- determine an NV situation.

6.6. Manual Scoring

If the Judges use score sheets to record their evaluation, they will operate their own chronometer and use the signs below to record their assessment. The score sheets of all judges must be collected immediately after the judges have scored the jump for checking by the Event Judge and Chief Judge. Freeze frame of the video image need not be used.

Situation:

- Correct scoring formation.....✓
- Incorrect or incomplete formation or inter 0
- Omission X
- NV Situation NV
- End of working time //

6.7. Posting of Scores

All judges scores shall be posted on the official score board designated by the Meet Director or Organiser.

CHAPTER 7 – RULES SPECIFIC TO THE COMPETITION

7.1. Title of the Competition

Title of the Competition: “___TH Canadian National Parachuting Championships.”

7.2. Aims of Competition

To determine the Canadian National Champions of Canopy Formation in the following events:

- 2way Sequential
- 4way Sequential
- 4way Rotation

7.3. Composition of Teams

7.3.1. Each team may comprise:

- One (1) Team Captain and alternate captain (if desired). Each team, upon registration, will submit the name of the team captain and alternate captain (if desired), one of whom will be the only team spokesperson on matters pursuant to the CNPC, in regard to the actual competition.
- Team Members
- Alternate(s)
- Videographer

7.3.2. At a CNPC:

- 2-way teams consisting of up to four (4) members, any of who may be the team Videographer. No more than one of the members can be registered with another team, and any two of the four registered may jump in any round of the competition as long as they are not in violation of 7.3.3 below. No other substitution is permitted.
- 4-way Sequential teams consisting of up to six (6) members, any of who may be the team Videographer. No more than one of the members can be registered with another team, and any four of the six registered may jump in any round of the competition as long as they are not in violation of 7.3.3 below. No other substitution is permitted. Any team that, for any reason, is permanently reduced to three (3) or fewer members will be eliminated from the event.
- 4-way Rotation team consisting of up to six (6) members, any of who may be the team Videographer. No more than one of the members can be registered with another team, and any four of the six registered may jump in any round of the competition as long as they are not in violation of 7.3.3 below. No other substitution is permitted. Any team that, for any reason, is permanently reduced to three (3) or fewer members will be eliminated from the event.

7.3.3. No competitor may jump with more than one team during the same round. If any competitor is registered with more than one team in one event and has already jumped with one team and for any reason jumps with a second team during a subsequent round, that competitor must not jump again with the first team. In the event that a team is awarded a rejump for a round and if a team member is injured and is unable to make the rejump, then this provision will not apply to the rejump, in that a registered member who has already jumped that round with another team may make the rejump, in order to allow the team to complete the rejump. The question of valid injury; shall be decided by the competition management - specifically, the Meet Director, Chief Judge, Meet Safety Officer and any medical doctor present.

7.3.4. Videographers must be entered for each team as part of the team. The evaluation process for the video evidence will be the same for any Videographer. Videographers may be one of the following:

- a) one of the members of the team and meet all the requirements necessary to be on the team and is eligible to receive medals and awards or;
- b) any other person. This Videographer is not eligible to receive awards and medals. In this case there may be no more than three (3) competitors in a 2-Way team, and no more than five (5) competitors in a 4-Way team. This Videographer may jump only as a Videographer and is subject to the same regulations as other competitors on the team. A Videographer may be replaced at any time during the competition, (with the agreement of the Meet Director) in which case the replacement Videographer will not be eligible for awards and medals.

7.3.5. Not Used

CHAPTER 8 – DIVE POOL

8.1. Definitions Used in These Diagrams

Definitions used in the formation diagrams are as follows:

8.1.1. Canopy Identification



8.1.2. Block Sequence Numbers: 1 2 3 4

8.1.3. Random Formation Letters: A B C D

8.1.4. Intermediate Requirements: INTER

APPENDIX AA – CF MANUAL JUDGING AND SCORING

AA.1. Manual Judging and Scoring: If an electronic scoring system is not available, the Judges will use score sheets to record their evaluation, will operate their own chronometer and use the signs below to record their assessment. The score sheets of all judges must be collected immediately after the judges have scored the jump for checking by the Event Judge and Chief Judge. Freeze frame of the video image need not be used.

Situation:

- Correct scoring formation.....✓
- Incorrect or incomplete formation or inter 0
- Omission X
- NV Situation NV
- No clear start to working time.....NT
- End of working time //

AA.2. Sections 6.2 to 6.7 will apply.

AA.3. The Event Judge will appoint a person to call the last few seconds of working time, in order to assist the judges to determine working time expiry.





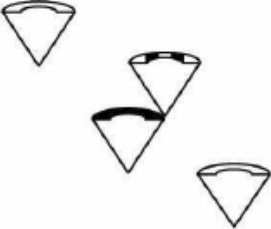
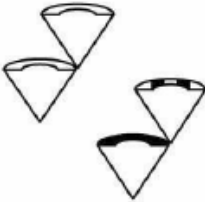
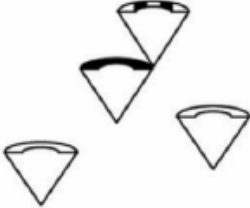
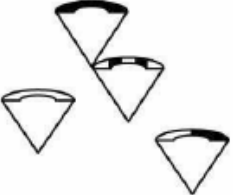



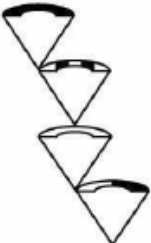
AA.4. If judges cannot determine the start of working time, 4.8.3 applies.




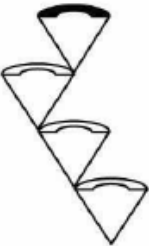
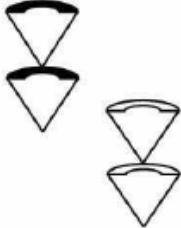
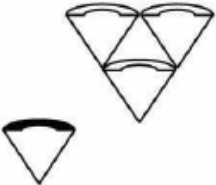

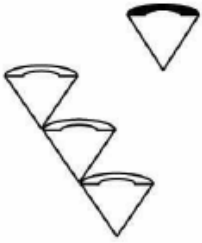




AA.5. The watch used to determine working time will be started on exit of the first jumper from the aircraft and must be capable of reading to the nearest 1/100th of a second.





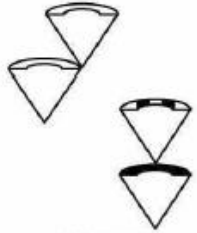
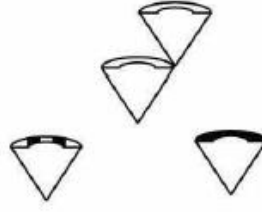
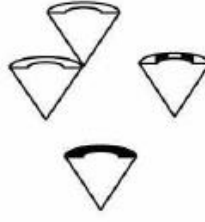
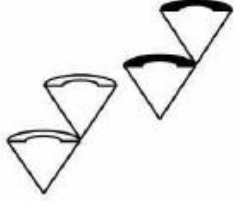
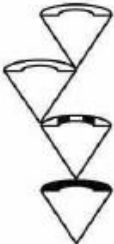



AA.6. A re-jump will be made at the earliest possible time, if either of the following occurs:

- (1) less than four judges have evaluated the jump;
- (2) less than three judges have recorded a working time

APPENDIX I – 4-WAY SEQUENTIAL BLOCK FORMATIONS

1  SNAKE	2  DIAMOND	3  STAIRSTEP	4  STEP STACK
 INTER	 INTER	 INTER	 INTER
 GATTON	 TWO STEP	 SNAKE	 TWO STEP

<p>5</p>  <p>STACK</p>	<p>6</p>  <p>DIAMOND</p>	<p>7</p>  <p>DIAMOND</p>	<p>8</p>  <p>SAWASDEE</p>
 <p>INTER</p>	 <p>INTER</p>	 <p>INTER</p>	 <p>INTER</p>
 <p>STACK</p>	 <p>VICHY</p>	 <p>DIAMOND</p>	 <p>HOOK</p>

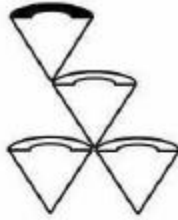
<p>9</p>  <p>STEP STACK</p>	<p>10</p>  <p>STEP STACK</p>	<p>11</p>  <p>SNAKE</p>	<p>12</p>  <p>STAIRSTEP</p>
 <p>INTER</p>	 <p>INTER</p>	 <p>INTER</p>	 <p>INTER</p>
 <p>SNACK</p>	 <p>STAIRSTEP</p>	 <p>STAIR STACK</p>	 <p>DIAMOND</p>

13

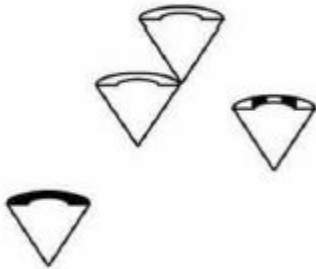


DIAMOND

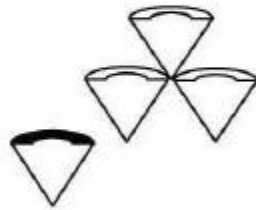
14



GATTON



INTER



INTER

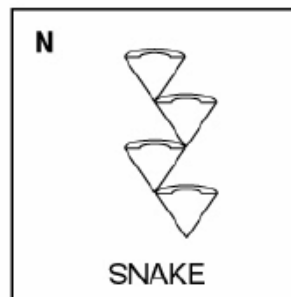
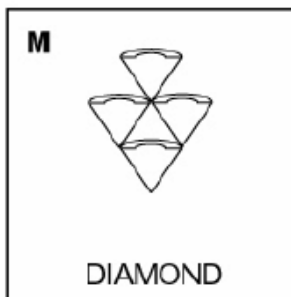
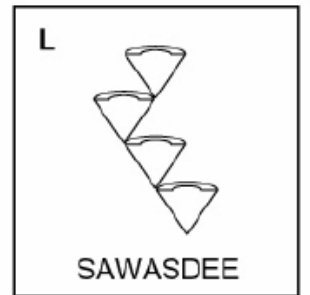
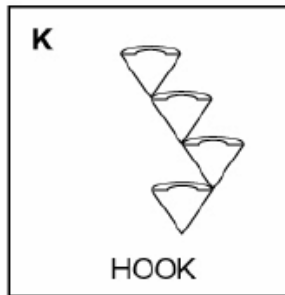
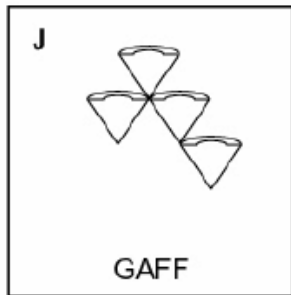
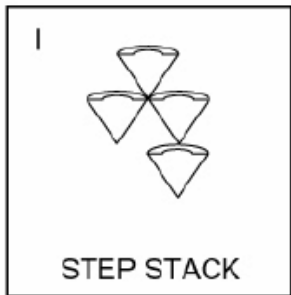
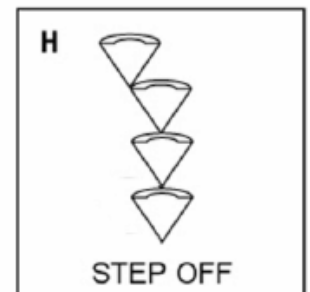
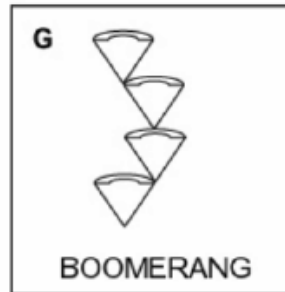
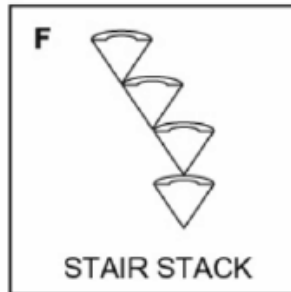
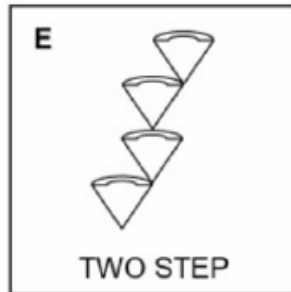
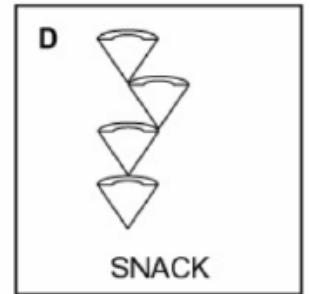
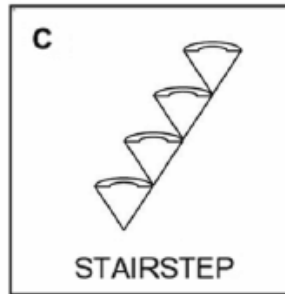
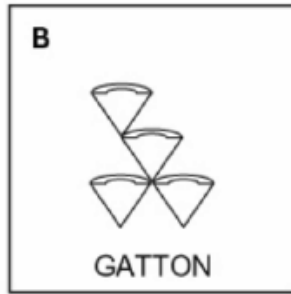
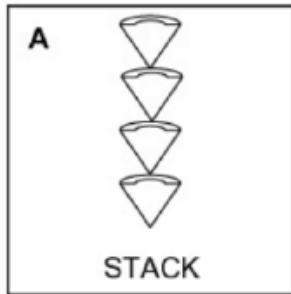


GATTON



DIAMOND

APPENDIX II – 4-WAY SEQUENTIAL RANDOM FORMATIONS



APPENDIX III – 2-WAY SEQUENTIAL RANDOM FORMATIONS

