

(b) (7)(C), (b) (7)(D)

(b) (5) DPP, (b) (5) ACP

1875

1875

1875

1875

1875

1875

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

[illegible]

1. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

1875

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279

280

281

282

283

284

285

286

287

288

289

290

291

292

293

294

295

296

297

298

299

300

301

302

303

304

305

306

307

308

309

310

311

312

313

314

315

316

317

318

319

320

321

322

323

324

325

326

327

328

329

330

331

332

333

334

335

336

337

338

339

340

341

342

343

344

345

346

347

348

349

350

351

352

353

354

355

356

357

358

359

360

361

362

363

364

365

366

367

368

369

370

371

372

373

374

375

376

377

378

379

380

381

382

383

384

385

386

387

388

389

390

391

392

393

394

395

396

397

398

399

400

401

402

403

404

405

406

407

408

409

410

411

412

413

414

415

416

417

418

419

420

421

422

423

424

425

426

427

428

429

430

431

432

433

434

435

436

437

438

439

440

441

442

443

444

445

446

447

448

449

450

451

452

453

454

455

456

457

458

459

460

461

462

463

464

465

466

467

468

469

470

471

472

473

474

475

476

477

478

479

480

481

482

483

484

485

486

487

488

489

490

491

492

493

494

495

496

497

498

499

500

501

502

503

504

505

506

507

508

509

510

511

512

513

514

515

516

517

518

519

520

521

522

523

524

525

526

527

528

529

530

531

532

533

534

535

536

537

538

539

540

541

542

543

544

545

546

547

548

549

550

551

552

553

554

555

556

557

558

559

560

561

562

563

564

565

566

567

568

569

570

571

572

573

574

575

576

577

578

579

580

581

582

583

584

585

586

587

588

589

590

591

592

593

594

595

596

597

598

599

600

601

602

603

604

605

606

607

608

609

610

611

612

613

614

615

616

617

618

619

620

621

622

623

624

625

626

627

628

629

630

631

632

633

634

635

636

637

638

639

640

641

642

643

644

645

646

647

648

649

650

651

652

653

654

655

656

657

658

659

660

661

662

663

664

665

666

667

668

669

670

671

672

673

674

675

676

677

678

679

680

681

682

683

684

685

686

687

688

689

690

691

692

693

694

695

696

697

698

699

700

701

702

703

704

705

706

707

708

709

710

711

712

713

714

715

716

717

718

719

720

721

722

723

724

725

726

727

728

729

730

731

732

733

734

735

736

737

738

739

740

741

742

743

744

745

746

747

748

749

750

751

752

753

754

755

756

757

758

759

760

761

762

763

764

765

766

767

768

769

770

771

772

773

774

775

776

777

778

779

780

781

782

783

784

785

786

787

788

789

790

791

792

793

794

795

796

797

798

799

800

801

802

803

804

805

806

807

808

809

810

811

812

813

814

815

816

817

818

819

820

821

822

823

824

825

826

827

828

829

830

831

832

833

834

835

836

837

838

839

840

841

842

843

844

845

846

847

848

849

850

851

852

853

854

855

856

857

858

859

860

861

862

863

864

865

866

867

868

869

870

871

872

873

874

875

876

877

878

879

880

881

882

883

884

885

886

887

888

889

890

891

892

893

894

895

896

897

898

899

900

901

902

903

904

905

906

907

908

909

910

911

912

913

914

915

916

917

918

919

920

921

922

923

924

925

926

927

928

929

930

931

932

933

934

935

936

937

938

939

940

941

942

943

944

945

946

947

948

949

950

951

952

953

954

955

956

957

958

959

960

961

962

963

964

965

966

967

968

969

970

971

972

973

974

975

976

977

978

979

980

981

982

983

984

985

986

987

988

989

990

991

992

993

994

995

996

997

998

999

1000

A photograph of a book's endpapers. The left side shows a dark, textured material, possibly velvet or a similar plush fabric. The right side shows a lighter, patterned material, possibly a silk or a fine paper with a subtle design. The binding edge is visible in the center, showing the stitching and the transition between the two materials. The overall appearance is that of a high-quality, possibly antique, book binding.

1871

1871

1871

1871

1871

1871

1871

1871

1871

1871

1871

1871

1871

1871

1871

1871

1871

1871

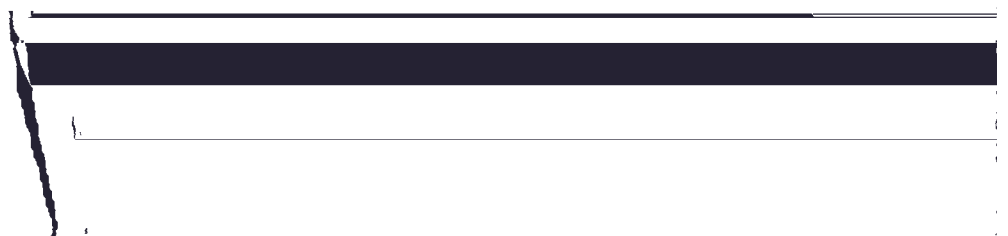
1871

1871

1871

1871

1871



10

11

12

13

14

15

16

17

18

19

20

21

22

23

1. *Chlorophyll a* (Chl *a*) is the primary photosynthetic pigment in most plants and algae. It is a green pigment that absorbs light energy in the blue and red regions of the visible spectrum. Chl *a* is located in the thylakoid membranes of chloroplasts.

2. *Chlorophyll b* (Chl *b*) is an accessory pigment that absorbs light energy in the blue and orange regions of the visible spectrum. It transfers the absorbed energy to Chl *a* for use in photosynthesis. Chl *b* is also located in the thylakoid membranes.

3. *Carotenoids* are a group of pigments that absorb light energy in the blue and green regions of the visible spectrum. They include carotenes (orange) and xanthophylls (yellow). Carotenoids transfer energy to Chl *a* and also play a role in protecting the photosynthetic apparatus from damage by excess light.

4. *Xanthophyll cycle* is a process where xanthophylls can be converted to zeaxanthin under high light conditions. This conversion helps dissipate excess light energy as heat, preventing damage to the photosynthetic system.

5. *Photosynthesis* is the process by which plants and algae convert light energy into chemical energy (sugar) using carbon dioxide and water. It occurs in the chloroplasts and involves two main stages: the light-dependent reactions and the Calvin cycle.

6. *Light-dependent reactions* are the first stage of photosynthesis, where light energy is used to split water molecules into oxygen and protons. This process occurs in the thylakoid membranes and involves the transfer of electrons through a series of proteins.

7. *Calvin cycle* is the second stage of photosynthesis, where carbon dioxide is fixed into a three-carbon compound (3-PGA) and then converted into sugar. This cycle occurs in the stroma of the chloroplast and uses the energy produced by the light-dependent reactions.

8. *Stroma* is the fluid-filled space surrounding the thylakoid membranes in a chloroplast. It contains various enzymes and molecules involved in the Calvin cycle and other metabolic processes.

9. *Thylakoid membranes* are the internal membranes of chloroplasts, where the light-dependent reactions of photosynthesis take place. They are stacked into structures called grana.

10. *Grana* are the individual stacks of thylakoid membranes within a chloroplast. They are connected by thin structures called stroma lamellae.

11. *Photosystem II* (PSII) is a protein complex in the thylakoid membrane that plays a key role in the light-dependent reactions. It is responsible for the initial absorption of light energy and the subsequent splitting of water.

12. *Photosystem I* (PSI) is another protein complex in the thylakoid membrane, involved in the light-dependent reactions. It absorbs light energy and transfers electrons to ferredoxin, which then reduces NADP⁺ to NADPH.

13. *Electron transport chain* (ETC) is a series of protein complexes in the thylakoid membrane that transfer electrons from PSII to PSI and finally to NADP⁺. This process is coupled with the pumping of protons across the membrane, creating a proton gradient used for ATP synthesis.

14. *Proton gradient* is the difference in proton concentration across the thylakoid membrane, created by the electron transport chain. This gradient drives the synthesis of ATP as protons flow back into the stroma through ATP synthase.

15. *ATP synthase* is a protein complex in the thylakoid membrane that uses the energy from the proton gradient to synthesize ATP from ADP and inorganic phosphate (Pi).

16. *ADP* (Adenosine Diphosphate) is a molecule that serves as a precursor for ATP. It consists of an adenine base, a ribose sugar, and two phosphate groups.

17. *Inorganic phosphate* (Pi) is a phosphate group that is released during the hydrolysis of ATP and is used for the synthesis of new ATP molecules.

18. *NADP⁺* (Nicotinamide Adenine Dinucleotide phosphate) is a coenzyme that acts as an electron acceptor in the light-dependent reactions. It is reduced to NADPH, which carries the electrons to the Calvin cycle.

19. *NADPH* (Reduced Nicotinamide Adenine Dinucleotide phosphate) is the reduced form of NADP⁺, carrying high-energy electrons that are used in the Calvin cycle to reduce carbon dioxide.

20. *Carbon fixation* is the process by which carbon dioxide is incorporated into an organic molecule, typically a three-carbon compound (3-PGA), during the Calvin cycle.

21. *3-PGA* (3-Phosphoglycerate) is a three-carbon compound formed by the fixation of carbon dioxide in the Calvin cycle. It is then converted into sugar through a series of steps.

22. *Sugar* is the final product of photosynthesis, typically glucose, which is used by the plant for energy and growth.

23. *Oxygen* is a byproduct of the light-dependent reactions of photosynthesis, released when water is split. It is essential for aerobic respiration in most organisms.

24. *Water* is a reactant in photosynthesis, providing electrons and protons for the light-dependent reactions. It is split into oxygen and protons.

25. *Carbon dioxide* is a reactant in photosynthesis, providing the carbon source for the Calvin cycle. It enters the chloroplast through stomata.

26. *Stomata* are small openings on the surface of a leaf, surrounded by guard cells, that allow for the exchange of gases (CO₂ and O₂) and water vapor.

27. *Guard cells* are specialized cells that surround the stomatal pore and control its opening and closing based on environmental conditions and internal signals.

28. *Transpiration* is the process by which water evaporates from the surface of a plant, primarily through the stomata. It is driven by the evaporation of water from the leaf surface.

29. *Evaporation* is the process by which a liquid changes into a gas. In the context of transpiration, it refers to the loss of water from the leaf surface.

30. *Photosynthesis rate* is a measure of the speed at which photosynthesis occurs, often expressed as the amount of oxygen produced or carbon dioxide consumed per unit time and area.

31. *Light intensity* is the amount of light energy falling on a surface, measured in units like lux or photons per unit area per unit time. It is a major factor affecting the rate of photosynthesis.

32. *Temperature* is a measure of the average kinetic energy of the particles in a substance. It affects the rate of photosynthesis, with optimal temperatures typically between 15°C and 30°C.

33. *CO₂ concentration* is the concentration of carbon dioxide in the atmosphere or within the leaf. It is a limiting factor for photosynthesis, as higher concentrations generally lead to higher rates.

34. *Water potential* is a measure of the potential energy of water, indicating the tendency of water to move from one area to another. It is important for understanding water uptake and transpiration.

35. *Photosynthesis inhibitors* are substances that block or reduce the rate of photosynthesis. They can be natural or synthetic and often target specific components of the photosynthetic machinery.

36. *Photosynthesis enhancers* are substances that increase the rate of photosynthesis. They can be natural or synthetic and often work by improving the efficiency of the photosynthetic process.

37. *Chlorophyll fluorescence* is the emission of light by chlorophyll molecules when they are excited by light energy. It is used as a measure of the health and efficiency of the photosynthetic system.

38. *Fluorescence yield* is a measure of the efficiency of the fluorescence process, representing the ratio of emitted light to absorbed light.

39. *Quenching* is the process by which the excited state of a molecule is deactivated, often by transferring energy to another molecule. In photosynthesis, quenching helps dissipate excess light energy as heat.

40. *Non-photochemical quenching* (NPQ) is a specific type of quenching that occurs in the thylakoid membranes, helping to protect the photosynthetic system from damage by excess light.

41. *Photochemical quenching* (PQ) is another type of quenching that occurs in the thylakoid membranes, involving the transfer of energy to the Calvin cycle.

42. *Thermal stability* is a measure of the ability of a substance to maintain its structure and function at high temperatures. It is important for understanding the resilience of photosynthetic organisms.

43. *Thermal denaturation* is the process by which a protein or other biological molecule loses its structure and function due to heat. It is a common way to study the stability of proteins.

44. *Thermal transition* is the point at which a substance undergoes a change in state or structure due to heat. In the context of photosynthesis, it might refer to the denaturation of a protein.

45. *Thermal shift assay* is a technique used to study the thermal stability of proteins. It involves monitoring changes in fluorescence or absorbance as a protein is heated.

46. *Thermal shift reagent* is a chemical compound used in thermal shift assays to bind to proteins and stabilize them, allowing for the measurement of their thermal stability.

47. *Thermal shift assay* is a technique used to study the thermal stability of proteins. It involves monitoring changes in fluorescence or absorbance as a protein is heated.

48. *Thermal shift reagent* is a chemical compound used in thermal shift assays to bind to proteins and stabilize them, allowing for the measurement of their thermal stability.

49. *Thermal shift assay* is a technique used to study the thermal stability of proteins. It involves monitoring changes in fluorescence or absorbance as a protein is heated.

50. *Thermal shift reagent* is a chemical compound used in thermal shift assays to bind to proteins and stabilize them, allowing for the measurement of their thermal stability.

1888

1888

1888

1888

1888

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

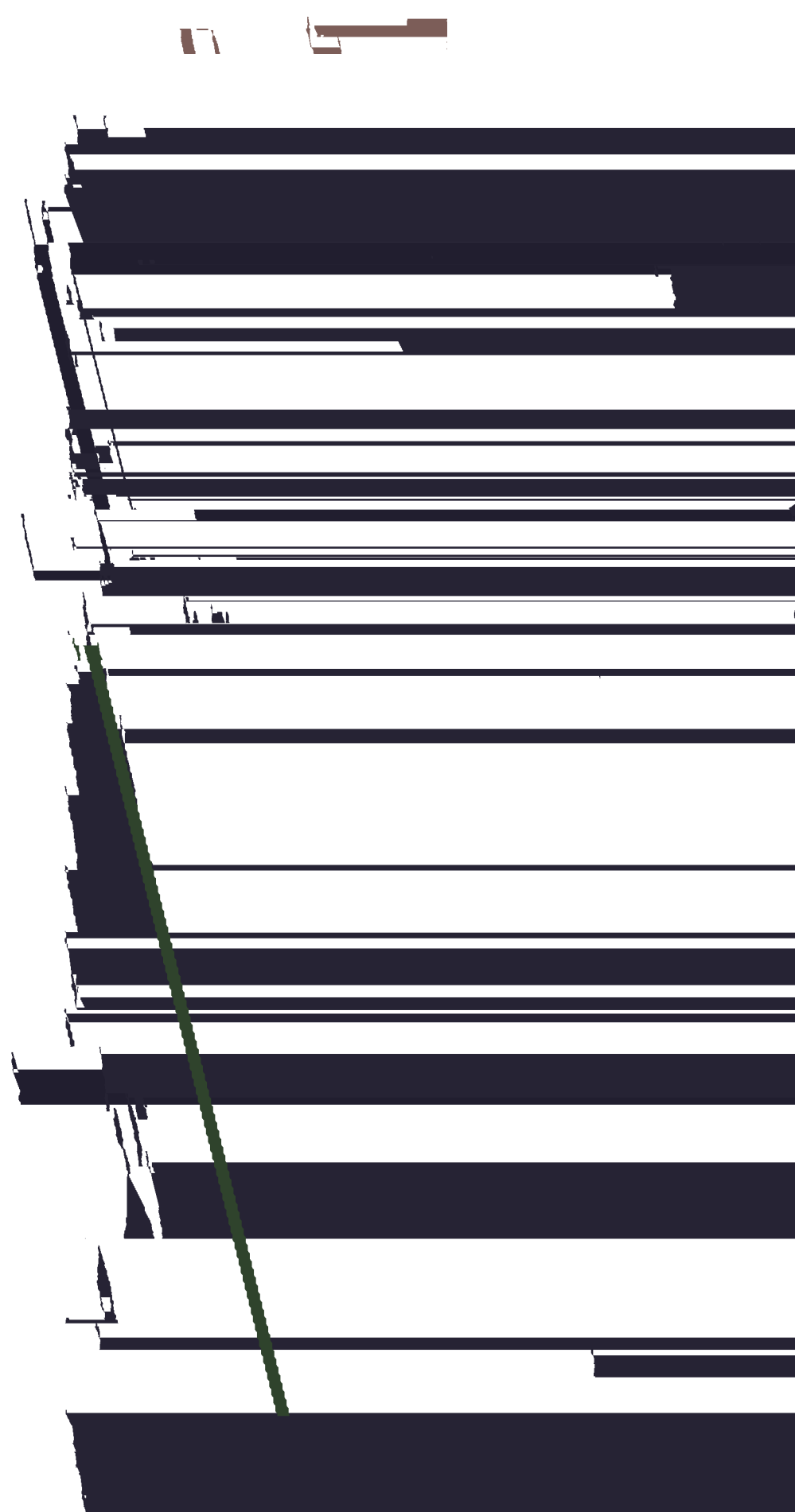
1000

1000

1000

1000

1000



[illegible]

1000

1000

1000

1000

1000

1000

1000

1000

一、
二、
三、
四、
五、
六、
七、
八、
九、
十、
十一、
十二、
十三、
十四、
十五、
十六、
十七、
十八、
十九、
二十、
二十一、
二十二、
二十三、
二十四、
二十五、
二十六、
二十七、
二十八、
二十九、
三十、
三十一、
三十二、
三十三、
三十四、
三十五、
三十六、
三十七、
三十八、
三十九、
四十、
四十一、
四十二、
四十三、
四十四、
四十五、
四十六、
四十七、
四十八、
四十九、
五十、
五十一、
五十二、
五十三、
五十四、
五十五、
五十六、
五十七、
五十八、
五十九、
六十、
六十一、
六十二、
六十三、
六十四、
六十五、
六十六、
六十七、
六十八、
六十九、
七十、
七十一、
七十二、
七十三、
七十四、
七十五、
七十六、
七十七、
七十八、
七十九、
八十、
八十一、
八十二、
八十三、
八十四、
八十五、
八十六、
八十七、
八十八、
八十九、
九十、
九十一、
九十二、
九十三、
九十四、
九十五、
九十六、
九十七、
九十八、
九十九、
一百、

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000





1. *Journal of the American Medical Association*, 1997; 278: 1039-1044.

1. *Journal of the American Medical Association*, 2000; 284: 2689-2694.

1. *Journal of the American Medical Association*, 1997; 278: 1039-1044.

1. *Journal of the American Medical Association*, 2000; 283: 2639-2644.

13

100

11

12

13

14

15

16

17

18

19



1

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[illegible]

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 1, 1801. It is a very important document, as it is the first time that the President has addressed the Congress since the establishment of the new government. The letter discusses the state of the Union and the progress of the new government.

2. The second part of the document is a report from the Secretary of the Treasury, dated January 1, 1801. It discusses the state of the Treasury and the progress of the new government.

3. The third part of the document is a report from the Secretary of the Navy, dated January 1, 1801. It discusses the state of the Navy and the progress of the new government.

4. The fourth part of the document is a report from the Secretary of the War, dated January 1, 1801. It discusses the state of the War and the progress of the new government.

5. The fifth part of the document is a report from the Secretary of the Interior, dated January 1, 1801. It discusses the state of the Interior and the progress of the new government.

6. The sixth part of the document is a report from the Secretary of the State, dated January 1, 1801. It discusses the state of the State and the progress of the new government.

7. The seventh part of the document is a report from the Secretary of the War, dated January 1, 1801. It discusses the state of the War and the progress of the new government.

8. The eighth part of the document is a report from the Secretary of the Navy, dated January 1, 1801. It discusses the state of the Navy and the progress of the new government.

9. The ninth part of the document is a report from the Secretary of the Treasury, dated January 1, 1801. It discusses the state of the Treasury and the progress of the new government.

10. The tenth part of the document is a report from the Secretary of the State, dated January 1, 1801. It discusses the state of the State and the progress of the new government.

一、[redacted]
二、[redacted]
三、[redacted]
四、[redacted]

五、[redacted]
六、[redacted]

七、[redacted]
八、[redacted]
九、[redacted]
十、[redacted]

十一、[redacted]
十二、[redacted]

十三、[redacted]
十四、[redacted]

十五、[redacted]
十六、[redacted]
十七、[redacted]
十八、[redacted]

十九、[redacted]
二十、[redacted]
二十一、[redacted]
二十二、[redacted]



1. [REDACTED]

2. [REDACTED]

3. [REDACTED]

4. [REDACTED]

5. [REDACTED]

6. [REDACTED]

7. [REDACTED]

8. [REDACTED]

9. [REDACTED]

10. [REDACTED]

11. [REDACTED]

12. [REDACTED]

13. [REDACTED]

14. [REDACTED]

15. [REDACTED]

16. [REDACTED]

17. [REDACTED]

18. [REDACTED]

19. [REDACTED]

20. [REDACTED]

21. [REDACTED]

22. [REDACTED]

23. [REDACTED]

24. [REDACTED]

25. [REDACTED]

26. [REDACTED]

27. [REDACTED]

28. [REDACTED]

29. [REDACTED]

30. [REDACTED]

[illegible]

