76. Following a failure of a Jet Pump, Reactor Pressure will **(1)**.

In accordance with Tech Spec Bases, the OPERABILITY of Jet Pumps is to allow reflooding of the core to **(2)** Reactor Water Level following a complete break of a Recirculation Pump suction pipe.

A. (1) lower
(2) (-) 162 inches

B. (1) lower
(2) (-) 215 inches

C. (1) rise
(2) (-) 162 inches

D. (1) rise
(2) (-) 215 inches

77. Unit 1 and 2 are in MODE 1, 100% RTP. Unit 3 is in MODE 4, when the following conditions occur on **Unit 3**:

At 0900:

- Shutdown Cooling isolates due to a fault

At 0925:

- Moderator temperature is 213 °F

At 1100:

- Maintenance reports the fault condition has been repaired and RHR can be placed in service
- Reactor Water Level maintained in the required band throughout the event

Given the conditions above and in accordance with EPIP-1, Emergency Classification Procedure, the **HIGHEST** required Emergency Classification to report will be a/an **(1)** and from the time of event declaration, NRC Notification must **NOT** exceed **(2)**.

Note: Notification of Unusual Event (NOUE)

[REFERENCE PROVIDED]

A. (1) NOUE
(2) 15 minutes

B. (1) NOUE
(2) 60 minutes

C. (1) ALERT
(2) 15 minutes

D. (1) ALERT
(2) 60 minutes

78. Unit 2 was in MODE 5 during a refueling outage, when the following conditions occurred:

At 0905:

- Operators commence fuel movements
- The first fuel bundle is dropped due to grapple mechanical failure

At 0915:

- 2-RM-90-1A, Fuel Pool Floor, alarming and indicating 126 mr/hr
- 2-RM-90-250A, Reactor, Turbine, Refuel Exhaust, alarming and indicating 4.7E+6 µCi/s

At 0917:

- Shift Manager (as the SED), makes an Emergency Plan Event Declaration

Given the conditions above and in accordance with EPIP-1, Emergency Classification Procedure, the **HIGHEST** required Emergency Classification to report is a/an **(1)** and the State of Alabama is required to be notified **NO** later than **(2)**.

Note: SED judgement shall **NOT** be used as a basis for Classification
Notification of Unusual Event (NOUE)

[REFERENCE PROVIDED]

A. (1) ALERT
(2) 0932

B. (1) ALERT
(2) 0945

C. (1) NOUE
(2) 0932

D. (1) NOUE
(2) 0945

79. Unit 2 is operating at 8% RTP with the following conditions:

- Due to a temporary loss of Drywell cooling, Drywell Pressure **PEAKED** at 2.1 psig
- HPCI initiated automatically and subsequently was tripped and locked out
- Subsequently, Drywell cooling was restored with Drywell Pressure stable at 1.4 psig

Given the conditions above, the HPCI initiation was **(1)** and in accordance with Tech Spec Bases, the REACTOR MODE SWITCH **(2)** be placed in RUN.

A. (1) valid
(2) can

B. (1) valid
(2) can NOT

C. (1) invalid
(2) can

D. (1) invalid
(2) can NOT

80. Unit 2 was in MODE 4 with Reactor Water Level at 120 inches during vessel flood up when the following occurs:

- Loss of Shutdown Cooling
- Leak in Drywell
- Drywell Pressure was reported as 15 psig
- Drywell Temperature reported to be 230 °F
- 2-LI-3-55, FLOOD UP LEVEL INSTRUMENT, is indicating 46 inches

Given the conditions above and in accordance with the EOIs, 2-LI-3-55, FLOOD UP LEVEL INSTRUMENT **(1)** valid.

The NUSO will direct performance of **(2)**.

Note: 2-EOI-APPENDIX-17B, RHR System Operation Drywell Sprays
2-EOI-APPENDIX-17C, RHR System Operation Suppression Chamber Sprays

[REFERENCE PROVIDED]

A. (1) is
(2) 2-EOI-APPENDIX-17C **ONLY**

B. (1) is
(2) 2-EOI-APPENDIX-17C **AND** 2-EOI-APPENDIX-17B

C. (1) is NOT
(2) 2-EOI-APPENDIX-17C **ONLY**

D. (1) is NOT
(2) 2-EOI-APPENDIX-17C **AND** 2-EOI-APPENDIX-17B

81. An ATWS has occurred on Unit 3 resulting in the following conditions:

- Reactor Power is 20%
- Reactor Water Level is 0 inches

3-EOI-1A, ATWS RPV Control, **(1)** direct Operators to **STOP** and **PREVENT** injection from EHPM and RCIC.

In accordance with the EOI Program Manual Bases, the reason Reactor Water Level is lowered to (-) 50 inches is to uncover the **(2)** spargers.

A. (1) does
(2) Feedwater

B. (1) does
(2) Core Spray

C. (1) does NOT
(2) Feedwater

D. (1) does NOT
(2) Core Spray

82. Unit 3 is operating at 100% RTP when the following conditions occur:

At 1000

- A fire is reported in the Unit 3 Main Control Room (MCR)

At 1010

- The Unit 3 MCR is abandoned

At 1025

- RCIC is controlling Reactor Water Level and MSRVs are controlling Reactor Pressure from 3-Panel-25-32, BACKUP CONTROL PANEL

Given the conditions above and in accordance with 3-AOI-100-2, Control Room Abandonment, the responsibility of assessing MCR habitability is performed by the **(1)**.

In accordance with EPIP-1, Emergency Classification Procedure, the **HIGHEST** required Emergency Classification to report is a/an **(2)**.

[REFERENCE PROVIDED]

A. (1) Shift Manager
(2) ALERT

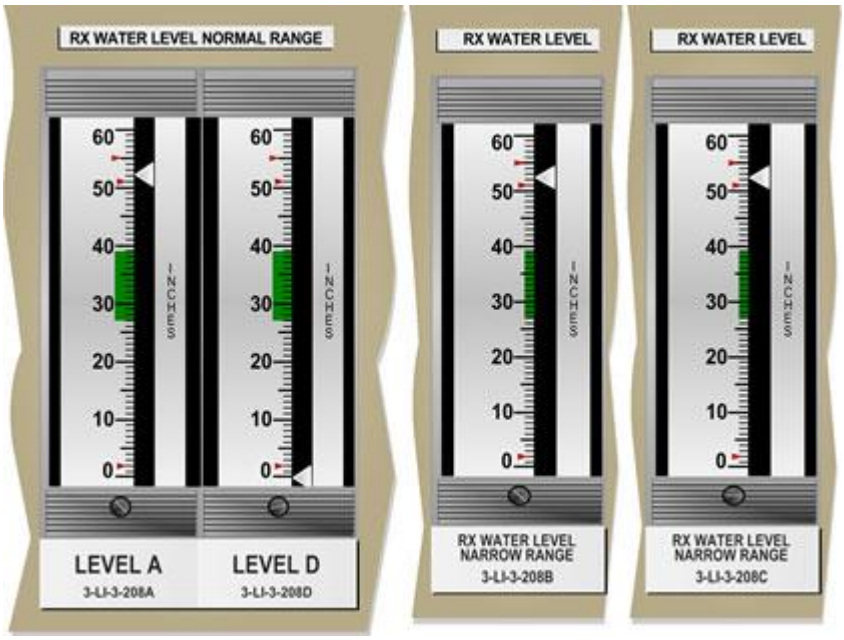
B. (1) Shift Manager
(2) SITE AREA EMERGENCY

C. (1) Incident Commander
(2) ALERT

D. (1) Incident Commander
(2) SITE AREA EMERGENCY

83. Unit 3 is operating at 100% RTP when a Feedwater Control System malfunction occurs with the following conditions:

- **3-LI-3-208D**, RX WATER LEVEL NARROW RANGE, fails **DOWNSCALE**
- Reactor Water Level peaked as indicated
- Tech Spec 3.3.2.2, Condition A has been entered



Given the conditions above, the Unit 3 Main Turbine is **CURRENTLY** **(1)** .

A few minutes later, **3-LI-3-208C**, RX WATER LEVEL NARROW RANGE, fails **DOWNSCALE** in the next minute, LCO 3.3.2.2 entry into Condition B **(2)** required.

[REFERENCE PROVIDED]

A. (1) tripped
(2) is

B. (1) tripped
(2) is **NOT**

C. (1) operating
(2) is

D. (1) operating
(2) is **NOT**

84. Unit 1 is operating in MODE 1 when the following conditions occur:

- Reactor SCRAM, all Control Rods inserted
- **NO** high **OR** low pressure make-up sources are available

In accordance with the EOIs, Emergency Depressurization is required **BEFORE** Reactor Water Level lowers to **(1)**.

In accordance with the EOIPM SECTION 0-V(L), C1, ALTERNATE LEVEL/PRESSURE CONTROL BASES, Minimum Zero Injection RPV Water Level (MZIRWL) lower limit ensures fuel clad temperatures will **NOT** exceed **(2)**.

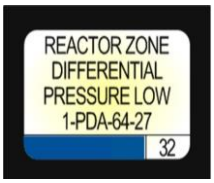
A. (1) (-) 235 inches
(2) 1500 ºF

B. (1) (-) 235 inches
(2) 1800 ºF

C. (1) (-) 162 inches
(2) 1500 ºF

D. (1) (-) 162 inches
(2) 1800 ºF

85. Unit 1 is operating at 100% RTP when the following conditions occur:



- REACTOR BUILDING VENTILATION ABNORMAL (1-9-3D, Window 3) alarms
- REACTOR ZONE DIFFERENTIAL PRESSURE LOW (1-9-3D, Window 32) alarms
- AUO reports REACTOR ZONE DIFFERENTIAL PRESSURE is (+) .5 inches of water locally
- Assume **NO** Operator action has been taken

Given the conditions above, Standby Gas Treatment **(1)** automatically started.

To mitigate this condition, the NUSO **(2)** direct entry into 1-AOI-30B-1, Reactor Building Ventilation Failure.

A. **(1)** has
(2) will

B. **(1)** has
(2) will NOT

C. **(1)** has NOT
(2) will

D. **(1)** has NOT
(2) will NOT

86. Unit 2 Operators have entered 2-EOI-1A, ATWS RPV CONTROL, with the following conditions:

- Reactor Power indicates 10%
- **ALL** SCRAM inlet/outlet blue lights are **EXTINGUISHED**

Given the conditions above and in accordance with 2-EOI-1A, ATWS RPV CONTROL, the Recirc Pumps **(1)** required to be tripped.

To mitigate this condition, the NUSO will direct **(2)**.

Note: 2-EOI Appendix-1A, Removal and Replacement of RPS SCRAM Solenoid Fuses
2-EOI Appendix-1F, Manual SCRAM

A. (1) are
(2) 2-EOI Appendix-1A

B. (1) are
(2) 2-EOI Appendix-1F

C. (1) are NOT
(2) 2-EOI Appendix-1A

D. (1) are NOT
(2) 2-EOI Appendix-1F

87. Unit 2 was operating at 100% RTP while performing the 2-SR-3.5.3.3, RCIC Comprehensive Pump Test surveillance when the following occurred:

- A manual SCRAM was inserted, **ALL** Control Rods are in
- RCIC exhaust line disc rupture occurs
- RCIC failed to automatically isolate and attempts to manually isolate RCIC are unsuccessful

Steam Leak Detection panel indications (Panel 2-9-21) are as follows:

- 2-TI-71-41A at 205 ºF and rising
- 2-TI-71-41B at 243 ºF and rising
- 2-TI-71-41C at 256 ºF and rising

No other temperature indicators are in alarm.

In accordance with EOIs, the NUSO will direct the crew to _____.

[REFERENCE PROVIDED]

A. **SHUT DOWN** the Reactor using 2-GOI-100-12A

B. **EMERGENCY DEPRESSURIZE** using 6 ADS valves

C. **DELIBERATELY LOWER** Reactor Pressure to 500 – 600 psig

D. **RAPIDLY DEPRESSURIZE** using Main Turbine Bypass Valves

88. Unit 2 is in MODE 5 during a scheduled refueling outage. A **NON-SPIRAL** core reload is in progress with the following conditions:

- SRM B is **INOPERABLE**
- The next fuel bundle to be moved is currently located in the Spent Fuel Pool and is designated for Reactor Cavity position **10-15**
- As the respective fuel bundle is grappled, SRM C fails downscale and is declared **INOPERABLE**
- **ALL** other SRMs are **OPERABLE**

Given the conditions above, fuel moves _____ in accordance with Tech Specs and 0-GOI-100-3C, Fuel Movement Operations During Refueling.

[REFERENCE PROVIDED]

A. **CAN** continue since the SRM in the **AFFECTED** core quadrant is **OPERABLE**

B. **CANNOT** continue since the SRM in the **AFFECTED** core quadrant is **INOPERABLE**

C. **CANNOT** continue since the SRMs in the **ADJACENT** core quadrants are **INOPERABLE**

D. **CAN** continue since the SRMs in the **AFFECTED AND AN ADJACENT** core quadrant are **OPERABLE**

89. Unit 3 is operating at 100% RTP when an event occurs with the following conditions:

- A transformer fault results in a Loss of Offsite Power to Unit 3
- Drywell Pressure **PEAKED** at 15 psig

Given the conditions above, **(1)** EDGs have started.

Subsequently, the following conditions are observed:

- '3A' EDG is manually tripped due to an oil leak

To restore power to 3A 4KV Shutdown Board, the NUSO will direct re-energizing the board by aligning **(2)**.

Note: 0-OI-82, Standby Diesel Generator System
0-AOI-57-1A, Loss of Offsite Power (161 and 500 KV)/Station Blackout

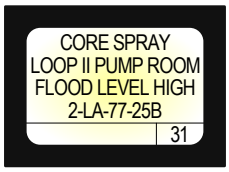
A. (1) **ALL**
(2) 'A' EDG in accordance with 0-OI-82

B. (1) **ALL**
(2) '3B' EDG in accordance with 0-AOI-57-1A

C. (1) **ONLY** Unit 3
(2) 'A' EDG in accordance with 0-OI-82

D. (1) **ONLY** Unit 3
(2) '3B' EDG in accordance with 0-AOI-57-1A

90. A leak from the Unit 2 Loop II Core Spray Room Cooler has resulted in the following:



- CORE SPRAY LOOP II PUMP ROOM FLOOD LEVEL HIGH, (2-9-4C, Window 31), is in alarm
- EECW to the Loop II Core Spray Room Cooler was determined to be the source of the leak and has been isolated

Given the conditions above, Loop II Core Spray **(1)** OPERABLE and entry into 2-EOI-3, Secondary Containment Control **(2)** required.

A. **(1)** is
(2) is

B. **(1)** is
(2) is NOT

C. **(1)** is NOT
(2) is

D. **(1)** is NOT
(2) is NOT

91. Unit 3 is operating at 100% RTP when the following conditions occur:

At 0600 on 5/16/22:

- RPS 3A trips
- 3-FCV-69-1, RWCU INBOARD SUCTION ISOLATION VALVE indicates closed
- 3-FCV-69-2, RWCU OUTBOARD SUCTION ISOLATION VALVE indicates open
- 3-FCV-69-12, RWCU RETURN ISOLATION VALVE indicates open

At 0615 on 5/16/22:

- 3A RPS Bus is energized on its alternate supply

The NUSO will enter Tech Spec 3.6.1.3 CONDITION **(1)** and Chemistry must obtain the first Reactor Coolant sample by **(2)**.

[REFERENCE PROVIDED]

A. (1) A **ONLY**
(2) 1000

B. (1) A **ONLY**
(2) 1015

C. (1) A **AND** B
(2) 1000

D. (1) A **AND** B
(2) 1015

92. Unit 2 is operating at 50% RTP when the following conditions occur:

- All Turbine Bypass Valves have failed open
- Reactor Steam Dome Pressure is 850 psig and lowering
- Prior to Operators performing any manual actions, the Reactor SCRAMs

The SCRAM occurred directly from a **(1)** signal.

A **(2)** report to the NRC is required in accordance with NPG-SPP-3.5, Regulatory Reporting Requirements.

[REFERENCE PROVIDED]

A. (1) Reactor Pressure
(2) 4 Hour

B. (1) Reactor Pressure
(2) 8 Hour

C. (1) MSIV position
(2) 4 Hour

D. (1) MSIV position
(2) 8 Hour

93. All 3 Units are operating at 100% RTP when the following conditions occur:

At 0845:

- BFN entered 0-AOI-100-7, Severe Weather
- Core Spray Pump 1B and 1D are tagged for scheduled maintenance

An AUO is dispatched to start **(1)** EDG Exhaust Fan(s) for each EDG room

At 0900:

- The AUO reports that for the 'A' EDG, neither fan can be placed in service

In accordance with Tech Specs, Unit 1 entry in LCO 3.0.3 is required at **(2)**.

[REFERENCE PROVIDED]

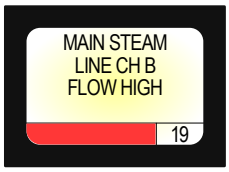
A. (1) **BOTH**
(2) 0900

B. (1) **BOTH**
(2) 1300

C. (1) **ONLY** one
(2) 0900

D. (1) **ONLY** one
(2) 1300

94. Unit 3 is in MODE 1 when the following conditions occur:



At 1000 on 5/01/22:

- MAIN STEAM LINE CH B FLOW HIGH (3-9-5B, Window 19) alarms due to a failed pressure transmitter

The setpoint for the above alarm is **(1)** of rated steam flow.

In accordance with Tech Spec 3.3.6.1, the REQUIRED ACTION is to enter MODE 3 at 2200 on **(2)**.

[REFERENCE PROVIDED]

A. (1) 135%
(2) 5/01/22

B. (1) 135%
(2) 5/02/22

C. (1) 200%
(2) 5/01/22

D. (1) 200%
(2) 5/02/22

95. In accordance with 0-OI-65, Standby Gas Treatment System (SGT), it is **PREFERRED** to **START** SGT from the **(1)** Main Control Room(s).

In accordance with Tech Spec Bases, following a Design Basis Accident, a **MINIMUM** of **(2)** SGT train(s) are required to maintain a (-) 0.25 inches water while providing the design flow of 12000 cfm.

A. (1) Unit 3
(2) 1

B. (1) Unit 3
(2) 2

C. (1) Unit 1 **AND** Unit 2
(2) 1

D. (1) Unit 1 **AND** Unit 2
(2) 2

96. In accordance with NPG-SPP-07.3, Work Activity Risk Management Process, Operations **____(1)____** **REQUIRED** to review Attachment 4, BWR Operational Risk Review – RED SHEET for a normally scheduled performance of 0-SR-3.8.1.1(A) – Diesel Generator 'A' Monthly Operability Test.

In accordance with NPG-SPP 6.1, Work Order Process, the **____(2)____** has the responsibility of assigning a task as a Priority 1 emergent work order.

A. (1) is NOT
(2) Shift Manager

B. (1) is NOT
(2) Work Week Manager

C. (1) is
(2) Shift Manager

D. (1) is
(2) Work Week Manager

97. In accordance with 2-OI-27, Condenser Circulating Water (CCW) System, 2-FCV-77-61, RADWASTE DISCHARGE VALVE to Unit 2 CCW discharge tunnel cannot be opened without a minimum of 2 CCW pumps operating on **(1)**.

In accordance with 0-SI-4.8.A.1-1, Liquid Release Permit, if 0-RM-90-130, RADWASTE EFFLUENT RADIATION MONITOR, is found **NONFUNCTIONAL** during a release, then the release **(2)**.

A. (1) Unit 2
(2) is no longer valid and a new release permit is required

B. (1) Unit 2
(2) may continue if an independent verification of the valve lineup and release calculation is immediately performed

C. (1) Any Unit
(2) is no longer valid and a new release permit is required

D. (1) Any Unit
(2) may continue if an independent verification of the valve lineup and release calculation is immediately performed

98. The **MINIMUM** required Emergency Classification for entering 0-EOI-4, Radioactivity Release Control, is a/an **(1)**.

During implementation of 0-EOI-4 and in accordance with the EOI Program Manual Bases, operation of Turbine Building Ventilation preserves **(2)**.

Note: Notification of Unusual Event (NOUE)

A. (1) NOUE
(2) equipment operability

B. (1) NOUE
(2) building accessibility

C. (1) ALERT
(2) equipment operability

D. (1) ALERT
(2) building accessibility

99. Site Security personnel are currently engaged with a hostile force in the Turbine Building breezeway and a TVA spokesman has made an official announcement to the public and news agencies regarding the ongoing event.

Given the condition above and in accordance with security procedures, site personnel will be notified to **(1)**.

In accordance with NPG-SPP-03.5, Regulatory Reporting Requirements, the **FIRST** report is required to be made to the NRC within **(2)**.

[**REFERENCE PROVIDED]**

A. (1) evacuate
(2) 1 hour

B. (1) evacuate
(2) 4 hours

C. (1) shelter in place
(2) 1 hour

D. (1) shelter in place
(2) 4 hours

100. The Shift Manager / Site Emergency Director (SM/SED) has declared a General Emergency.

The Central Emergency Control Center (CECC) is **NOT** staffed.

Besides classification, which **ONE** of the following duties can **NOT** be delegated to another emergency team member by the SM/SED in accordance with Emergency Plan procedures?

A. Notifications to the State.

B. Notifications to Site Personnel.

C. Conducting Site Accountability Actions.

D. Determining Protective Action Recommendations.

BFN ILT 2204 SRO References as of 1/31/2022

Verify ALL (1) hr / immediately are redacted

REFERENCE PROVIDED to candidate

77. EPIP-1, Attachment 1, COLD INITIATING CONDTIONS-MODES 4-5-DEFUELED

78. EPIP-1, Attachment 1, COLD INITIATING CONDTIONS-MODES 4-5-DEFUELED

80. 2-EOI-5, CURVES AND CAUTIONS Caution 1 Instrument Level Table, Curve 5, Drywell Spray Initiation Limit

82. EPIP-1, Attachment 1, HOT INITIATING CONDTIONS-MODES 1-2-3

83. Unit 3 Tech Spec 3.3.2.2 (No Bases), 3-LI-3-208A, B, C, D – REACTOR WATER LEVEL NORMAL NARROW RANGE

85. REACTOR BUILDING VENTILATION ABNORMAL (1-9-3D, Window 3), REACTOR ZONE DIFFERENTIAL PRESSURE LOW (1-9-3D, Window 32)

87. 2-EOI-3, Table SC-1

88. 0-GOI-100-3C, Attachment 14 (Page 1 of 1) Core Quadrants

90. CORE SPRAY LOOP II PUMP ROOM FLOOD LEVEL HIGH, (2-9-4C, Window 31)

91. Unit 3 Tech Spec 3.6.1.3 (No Bases) and Unit 3 TRM 3.4.1 (No Bases)

92. NPG-SPP-3.5 Attachment 1 (Page 1 through 18)

93. Unit 1 Tech Spec 3.8.1 (No Bases) and Unit 1 Tech Spec 3.5.1 (No Bases)

94. Unit 3 Tech Spec 3.3.6.1 (No Bases), MAIN STEAM LINE CH B FLOW HIGH (3-9-5B, Window 19)

99. NPG-SPP-3.5 Attachment 1 (Page 1 through 18), EPIP-1, Attachment 1, HOT INITIATING CONDTIONS-MODES 1-2-3

Test: ILT 22884 NRC EXAM

Class: KEY

Instructor:

LXR•TEST™
Response Form
LXR-20020

Name:

Signature:

Date:

READ CAREFULLY!
OK NOT OK

- Use black ink only.
- Mark responses darkly and fill completely.
- Erase unwanted marks clearly.
- Do NOT make any stray marks on the page.
- No credit will be given for improper marks.
- If Side 2 is used, fill in ID on both sides.

DOCKET NUMBER

Version: V = 0

C 1 C 2 C 3 C 4

SECTION 1

	T	F			T	F		
1	●	B	C	D	51	A	●	C	D
2	●	B	C	D	52	●	B	C	D
3	A	B	C	●	53	A	●	C	D
4	●	B	C	D	54	A	B	C	●
5	A	B	●	D	55	A	B	C	●
6	A	B	C	●	56	●	B	C	D
7	●	B	C	D	57	A	B	●	D
8	A	B	C	●	58	A	B	●	D
9	A	●	C	D	59	A	B	C	●
10	A	B	●	D	60	●	B	C	D
11	●	B	C	D	61	A	B	C	●
12	A	B	C	●	62	A	B	●	D
13	A	●	C	D	63	A	●	C	D
14	●	B	C	D	64	A	B	C	●
15	A	B	●	D	65	●	B	C	D
16	A	●	C	D	66	A	B	C	●
17	A	●	C	D	67	●	B	C	D
18	A	B	●	D	68	A	B	C	●
19	A	B	C	●	69	A	B	●	D
20	A	●	C	D	70	●	B	C	D
21	A	B	●	D	71	A	B	C	●
22	A	B	C	●	72	●	B	C	D
23	A	B	●	D	73	A	B	C	●
24	A	●	C	D	74	A	B	●	D
25	A	B	●	D	75	A	B	C	●
26	A	●	C	D	76	A	●	C	D
27	A	B	C	●	77	A	B	C	●
28	A	B	●	D	78	●	B	C	D
29	●	B	C	D	79	A	B	C	●
30	A	B	●	D	80	A	●	C	D
31	A	●	C	D	81	A	B	●	D
32	●	B	C	D	82	●	B	C	D
33	A	B	●	D	83	A	B	●	D
34	A	●	C	D	84	A	●	C	D
35	A	B	●	D	85	A	B	●	D
36	A	●	C	D	86	●	B	C	D
37	A	B	C	●	87	A	●	C	D
38	A	●	C	D	88	A	B	C	●
39	●	B	C	D	89	A	●	C	D
40	A	●	C	D	90	A	B	●	D
41	A	B	●	D	91	●	B	C	D
42	A	●	C	D	92	A	B	●	D
43	A	●	C	D	93	A	B	C	●
44	●	B	C	D	94	A	●	C	D
45	A	B	●	D	95	A	B	C	●
46	●	B	C	D	96	●	B	C	D
47	A	B	C	●	97	●	B	C	D
48	A	●	C	D	98	A	B	C	●
49	A	B	●	D	99	A	B	●	D
50	A	●	C	D	100	A	B	C	●

SECTION 2

1 2 3

4 5 6

7 8 9

10 11 12