

[80]

SEAT No. _____

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SARDAR PATEL UNIVERSITY V.V.NAGAR
B.Sc.(VIth SEM.) INSTRUMENTATION (V)

29th MARCH-2019 EXAMINATION

SUBJECT- CONTROL ROOM INSTRUMENTATION

SUB.CODE-US06CINV03

TIME: 10:00 am to 1:00 pm

MARKS-70

Q-1

Choose correct answer

[10]

1. Which of the following transfer mode is fasted?
(A) sub cycle (C) multi cycle
(B) no break (D) none of above
2. Multiple recorder used for recording
(A) single parameter on multiple strip (C) multiple parameter on separate strip
(B) multiple parameter on single strip (D) single parameter on single strip
3. Which of the following control panel is preferred for DCS based control rooms?
(A) Flat (C) Console
(B) Front Break (D) All of above
4. Limitation of plastic as panel material is
(A) Requirement of Frame (C) Durability
(B) Colour (D) Good finish
5. Which of the following is not a type of workstation?
(A) Operator's (C) Engineer's
(B) Administrative (D) Portable
6. Class III panel wiring is preferred for
(A) Gas (C) dust
(B) Fibres (D) All of the above
7. Which Types of indication is used to show the state of parameter
(A) Parametric (C) Recording
(B) Galvanometric (D) None
8. Acoustic indicators provide along with visible indication
(A) Buzz or beep (C) both A & B
(B) Recording (D) none of above
9. Which annunciator system is used for log of warnings?
(A) Graphic Annunciator (C) Recording Annunciator
(B) Solid state Annunciator (D) Integral Annunciator
10. Modular and non modular systems are sub types of
(A) Graphic Annunciator (C) Recording Annunciator
(B) Vocal Annunciator (D) Integral Annunciator

(1)

(P.T.O.)

- Q-2 Short answer type question. (any ten) [20]**
1. Explain in brief: High density Instruments.
 2. Briefly explain Vocal annunciator.
 3. Differentiate between fixed scale and movable scale indicators.
 4. Explain bus transfer switch briefly.
 5. Enlist advantages and disadvantage of steel as construction material for panels.
 6. Explain intrinsically safe design.
 7. Describe in brief role of TEST and ACK buttons on annunciator panel.
 8. Enlist different classes of combustible panels.
 9. Give the classification workstation based on hardware architecture.
 10. Give the classification of different types of recorders.
 11. Enlist different reasons of power failures.
 12. Explain strip chart recorder in few line.
- Q.3 Enlist all types of annunciators. Explain integral and recording type of annunciator with necessary diagrams. [10]**
- OR**
- Q.3 Describe principle of operation of annunciator system. Also Explain Remote type annunciator. [10]**
- Q.4(a) Write a short note on traditional control room. [05]**
- Q.4(b) Explain panel wiring with necessary figure. [05]**
- OR**
- Q.4(a) Explain graphic panel construction with necessary diagram. [05]**
- Q.4(b) Describe panel material of construction. [05]**
- Q.5 Write a detailed note on Uninterruptible Power Supply (UPS). [10]**
- OR**
- Q.5(a) Write Note: Digital Indicators. [05]**
- Q.5(b) Draw the diagram of light beam recorder and explain its working. [05]**
- Q.6 With the help of neat diagram explain Potentiometric Recorder. [10]**
- OR**
- Q.6 Write note on movable and fixed scale indicators. [10]**

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