SARDARPATEL UNIVERSITY

T.YB.Sc. Sem-V EXAMINATION

| SUB. CODE:-US05CELE06 | Analog |
|----------------------------|--------|
| DATE -03/11/2018, Saturday | TIME:- |

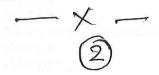
TIME:-10:00 am to 1:00 pm

Communications

MARKS-70

| Q-1 | Choose correct answer | y. | | 0] |
|-----|---|------------------------------------|---------------|-----|
| 1. | In TV picture signal ismodul | ated. | | |
| | (A) AM | (C) PM | | |
| | (B) FM | (D) None of these | | |
| 2. | IF frequency in case of of super-heterodyn | e radio receiver is | | |
| | (A)455 khz | (C) 55 khz | | |
| | (B) 45 khz | (D) None of these | | |
| 3. | Aspect ratio used in T.V receiver is | | | |
| | (A) 4:3 | (C) 3:3 | | |
| | (B) 4:4 | (D) None of these | | |
| 4. | The function of amplitude de-modulatio | (C)Frequency modulation | | |
| | (A)Amplitude modulation | (D) None of these | | |
| | (B) Phase modulation | | | |
| 5. | A single transistor working as frequency m | (C) mixer | | |
| | (A) converter | (D) None of these | , | |
| _ | (B) local oscillator | | | |
| 6. | As different stations are tuned in Radio Re | ceiver of p frequency of finite is | | |
| | (A) Country | (C) Changes | | |
| | (A) Constant | (D) None of these | 29 | |
| - | (B) Zero | (b) None of these | | |
| 7. | Problem of flicker is solved by | (C) Cut-off | | |
| | (A) Interlaced Scanning | (D) None of these | | |
| 0 | (B) Blanking is used to match impedence of | A | | |
| 8. | (A)BALUN | (C) RF TUNER | | |
| | (B) IF TRAP | (D) None of these | | |
| 9. | The function of IF amplifier in super heter | | | |
| 9. | (A) Reject | (C) Attenuate | <u></u> \$403 | |
| | (B) select and amplify | (D) None of these | | |
| 10. | In TV sound signal ismodul | | | |
| 10. | (A) AM | (C) PM | | |
| 24 | (B) FM | (D) None of these | | |
| Q-2 | Short answer type question. (any ten) | * * | [2 | 20] |
| 1. | Draw the circuit of linear diode detector. | 88 0 = | | |
| 2. | Explain how AVC work. | | | |
| 3. | List salient features of Broad Cast Receive | r. | | |
| 4. | Give classifications of a Radio Receiver. | ä | | |
| 5. | Draw the block diagram of mixer and exp | lain its working. | | |
| 6. | Explain interlaced scanning. | | | |
| 7. | List basic functions of A.M. Receiver. | | | |
| 8. | List functions of RF Tuner in Black & Whit | e TV receiver. | | |
| 9. | Explain Aspect Ratio. | | | |
| 10. | Explain scanning. | | | 8 |
| 11. | Draw the circuit of BALUN. | | | |
| | Draw the block diagram of VHF Tuner in | | | |

| Q.3 | Draw the circuit of frequency converter using one transistor and explain its working | [10] |
|-----|--|-------------|
| | OR | |
| Q.3 | Draw the circuit of RF Amplifier and explain its working . | [10] |
| Q.4 | List basic functions of AM Receiver and explain each in detail. | [10] |
| 3.2 | OR | |
| Q.4 | Draw the block diagram of super hetero-dyne Radio Receiver and explain function of each block. | [10] |
| Q.5 | Draw a neat diagram of Vidicon camera tube and explain its working | [10] |
| Ų.J | OR | 2 |
| Q.5 | Draw a neat diagram of Image orthicon camera tube and explain its working | [10] |
| Q.6 | List different inter stage coupling methods. Explain all in detail. | [10] |
| | OR | F. 1. 1. 1. |
| Q.6 | Draw a near block diagram of Black & White Broadcast TV Receiver. | [10] |



.