

### SECTION-B

**Note:** Short answer type questions. Attempt any six questions out of eight questions. (6x5=30)

- Q.11 Write applications of Ultrasonic in industry.
- Q.12 Describe fundamental and derived units.
- Q.13 Explain in brief the molecular theory of surface tension.
- Q.14 Write short note on piezo-electric effect.
- Q.15 State the laws of radiations.
- Q.16 Write down effects of vibrations on building bridges.
- Q.17 Explain reflection of a wave from a plane surface.
- Q.18 Describe the concept of viscosity and it's coefficient.

### SECTION-C

**Note:** Long answer questions. Attempt any one questions out of two questions. (1x10=10)

- Q.19 Explain resonance, free and forced vibrations with example.
- Q.20 Explain in detail the principle, working and uses of pyrometer.

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**1st Sem, Level 3 / DVOC ( Ref. & Air Cond., Medical Imaging Tech., Auto. Servicing, ITM, PT, SD, AMT, FP, EMS)**

**Subject : Applied Physics**

Time : 2 Hrs.

M.M. : 50

### SECTION-A

**Note:** Very short questions. Attempt all ten questions. (10x1=10)

- Q.1 MKS system stands for\_\_\_\_\_
- Q.2 SI unit of frequency is\_\_\_\_\_
- Q.3 Small rain drops are spherical due to\_\_\_\_\_.
- Q.4 Coefficient of viscosity depends only upon nature of the liquid.(True/False)
- Q.5 Give an use of overhead projector.
- Q.6 Dimensional formula of velocity is\_\_\_\_\_
- Q.7 \_\_\_\_\_ is a device used to measure temperature.
- Q.8  $M^1, L^1 T^2$  is dimensional formula of\_\_\_\_\_
- Q.9 What is epidiascope?
- Q.10 Ultrasonics waves have frequency greater than \_\_\_\_\_ Khz.