Name of the Student:_____
Max. Marks : 21 Marks **Time : 21 Minutes**

Mark Schemes

Q1.

(a) non-spherical cornea **(1)**

(b) image in one plane is focused, but image in plane at right angles is out of focus **(1)**

(c) cylindrical lens **(1)**

(d) power of the lens **(1)**
angle of correction **(1)**

[5]

Q2.

(a) (image is) virtual **(1)**

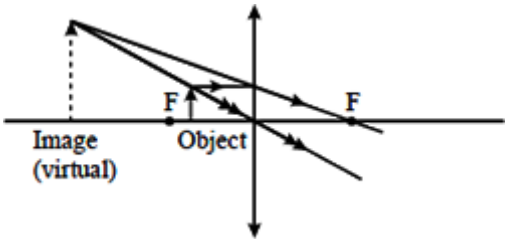
(b) $f = \frac{1}{P} = \frac{1}{10}$ = 0.10 m **(1)**

(c) (use of $\frac{1}{f} = \frac{1}{u} + \frac{1}{v}$ gives) $\frac{1}{0.1} = \frac{1}{u}$ – **(1)** $\frac{1}{0.25}$ **(1)**

(allow C.E. for value of f from (ii))

$\frac{1}{u}$ = 14 **(1)** (gives u = 0.071 (m))

(d)



ray parallel to axis through F and ray through centre of lens to form image (virtual) **(1)**
image, object and principal foci labelled **(1)**

[7]

Q3.

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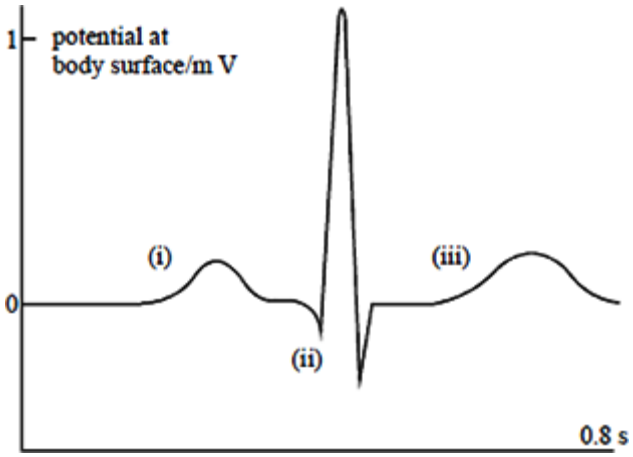
(a) electrodes made from a material which does not become polarised
electrodes coated with conducting gel any two **(2)**
hair and dead skin removed

2

(b) high gain
high input impedance any two **(2)**
low noise

2

(c)



for waveform:
suitable scales **(1)**
correct shape **(1)**

for marking in correct position on waveform:
atrial depolarisation (i) **(1)**
ventricular depolarisation (ii) **(1)**
ventricular repolarisation (iii) **(1)**

5

[9]

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