Class-5

Subject-Mathematics

Chapter-12 (Time)

Lecture- 02 (Solution)

1. Answer the following question: (Suppose that 1 month = 30 days)

  a) **Convert 5 months to hours.**
  b) **Convert 2 years to hours.**
  c) **Convert 10 years to days**
  d) **Convert 12 years 5 months to days.**
  e) **Express 100000 minutes in month, day, hour and minutes.**
  f) **Express 10000 seconds in hour, minute and second.**

Solution:

a) 5 months

= (5 × 30) days [∵ 1 month = 30 days]

= 150 days

= (150 × 24) hours [∵ 1 day = 24 hours]

= 3600 hours

Ans: 3600 hours.

b) 2 years

= (2 × 12) months [∵ 1 year = 12 months]

= 24 months

= (24 × 30) days [∵ 1 month = 30 days]

= 720 days

= (720 × 24) hours [∵ 1 day = 24 hours]

= 17280 hours

Ans: 17280 hours.

c) 10 years

= (10 × 12) months [∵ 1 year = 12 months]

= 120 months

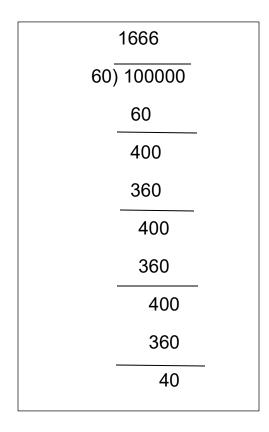= (120 × 30) days [∵ 1 month = 30 days]

= 3600 days

Ans: 3600 days.

d) 100000 minutes

= (1000 ÷ 60) hours [∵ 1 minute = $\frac{1}{60}$ hours]

= 1666 hours + 40 minutes

= (1666 ÷ 24) days + 40 minutes [∵ 1 hour = $\frac{1}{24}$ days]

= 69 days + 10 hours + 40 minutes

= (69 ÷ 30) months + 10 hours + 40 minutes [∵ 1 day = $\frac{1}{30}$ months]

= 2 hours + 9 days + 10 hours + 40 minutes

= 2 hours 9 days 10 hours 40 minutes

Ans: 2 hours 9 days 10 hours 40 minutes.

Rough

```
              1666
        ┌──────────
    60) 100000
              60
        ─────────
             400
             360
        ─────────
             400
             360
        ─────────
             400
             360
        ─────────
              40
```

```
            69
        ┌────────
    24) 1666
         144
        ──────
         226
         216
        ──────
          10
```

```
           2
       ┌──────
   30) 69
       60
       ────
        9
```

f) 10000 seconds

= (10000 ÷ 60) minutes [∵ 1 second = $\frac{1}{60}$ minutes]

= 166 minutes + 40 seconds

= (166 ÷ 60) hours + 40 seconds [∵ 1 minute = $\frac{1}{60}$ hours]

= 2 hours + 46 minutes + 40 seconds

= 2 hours 46 minutes 40 seconds

Ans: 2 hours 46 minutes 40 seconds.

2. Convert the following time written in the 12 – hour clock to the 24 – hour clock.

a) 3:00 p.m.   b) 11:42 p.m.   c) 0:20 a.m.   d) 12:00 a.m.

Solution:

a) 3:00 p.m. is equivalent to 15:00 in 24 hour clock.

b) 11:42 p.m. is equivalent to 23:42 in 24 hour clock.

c) 0:20 p.m. is equivalent to 00:20 in 24 hour clock.

d) 12:00 a.m. is equivalent to 12:00 in 24 hour clock.

3. Convert the following time written in the 24 – hour clock to the 12 – hour clock.

a) 02:04   b) 15:34   c) 24:00   d) 21:13

Solution:

a) 02:04 is equivalent to 2:04 a.m.

b) 15:34 is equivalent to 3:34 p.m.

c) 24:00 is equivalent to 00:00.

d) 21:13 is equivalent to 9:13 p.m.

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