Working with Time Exam Practice

Converting between units of Time

Q1. Change the following to hours

(i) 120 minutes

$\frac{120}{60} = 2$

Answer: 2h

[1 Mark]

(ii) 270 minutes

$\frac{270}{60} = 4.5$

Answer: 4.5h

[1 Mark]

(iii) 45 minutes

$\frac{45}{360} = 0.75$

Answer: 0.75h

[1 Mark]

(iv) 540 minutes

$\frac{540}{60} = 9$

Answer: 9h

[1 Mark]

Q2. Change the following to minutes

(i) 3 hours

$3 \times 60 = 180$

Answer: 180 m

[1 Mark]

(v) 4.5 hours

$4.5 \times 60 = 270$

Answer: 270m

[1 Mark]

(vi) 5 hours 20 minutes

$5 \times 60 = 300$

$300 + 20 = 320$

Answer: 320m

[1 Mark]

(vii) 1 hour 45 minutes

$60 + 45 = 105$

Answer: 105m

[1 Mark]

Q3. Change the following to seconds

(i) 10 minutes

$10 \times 60 = 600$

Answer: 600s

[1 Mark]

(ii) 2 minutes 40 seconds

$2 \times 60 = 120$

$120 + 40 = 160$

Answer: 160s

[1 Mark]

(iii) 5 minutes 12 seconds

$5 \times 60 = 300$

$300 + 12 = 312$

Answer: 312s

[1 Mark]

(viii) 1 hour

$1 \times 60 \times 60 = 3600$

Answer: 3600s

[1 Mark]

Converting between the 12 and 24 hour clocks

Q4. Convert the following times to the 24 hour clock:

(i) 5.30 pm

Answer: 17:30

[1 Mark]

(ii) 12.15 am

Answer: 12:15

[1 Mark]

(iii) 7.45 am

Answer: 07:45

[1 Mark]

(iv) 2.10 pm

Answer: 14:10

[1 Mark]

Q5. Convert the following times to the 12 hour clock:

(i) 18.30

Answer: 6:30pm

[1 Mark]

(ii) 11.40

Answer: 11:40am

[1 Mark]

(iii) 03.45

Answer: 3:45am

[1 Mark]

(iv) half-past midnight

Answer: 12:30am

[1 Mark]

Problem Solving

Q6. A TV show starts at 8.30pm.
The show lasts 50 minutes, and has a 5 minute break in the middle for adverts.
When time does the show end?

8:30
+30
9:00
+20
9:20
+5
9:25

9:25am or 09:00

[2 Marks]

Q7. A pop concert lasts 2 hours 35 minutes. If it finished at 10 minutes past midnight, what time did it start?
Give your answer using the 24 hour clock.

00:10
-2h
22:10
-10m
22:00
-25m
21:35

9:35pm or 21:35

[2 Marks]

Q8. Roy sets off from his home at 11.00 for a walk.
He walks for 75 minutes and then has lunch at a café for 45 minutes.
He then leaves and has a 10 minute bus journey back home.
What time does he arrive home?

75 + 45 + 10 = 130 = 2h 10m

11:00
2h
13:00
10m
13:10

1:10pm or 13:10

[3 Marks]

Q9. Jessica wants to catch a plane at the airport.

The scheduled flight time of the plane is at 18.40.

She sets off from her home at 13.50 and has a 25 minute journey by taxi to the train station.
The train then takes 2 hours 30 minutes to get to the airport.

Given that she must arrive at least two hours before the scheduled flight time, will Jessica arrive in time at the airport?

13:50
+10
14:00
+15
14:25
+2h
16:25
+30m
16:55
+2h
18:55

No, he arrives less than 2h before

[3 Marks]

<u>Timetable Problems</u>

Q10. Here is part of train timetable

Ilkley	0720	0750	0820	0850
Menston	0735	-	-	0905
Guiseley	0745	0815	-	-
Kirkstall	0755	0825	0846	0919
Leeds	0803	0836	0857	0927

a) Paul arrives at Guiseley station at 8.00am and catches the first train to Leeds. What time does he arrive in Leeds?

08:36

[1 Mark]

b) Ron arrives at Kirkstall station at 0756. How long does he have to wait for the next train?

07:56
08:00 +4m
08:25 +25m

29m

29m

[1 Mark]

c) Sarah travels from Menston to Kirkstall by train for a meeting at the office where she works. The meeting will take place at 8.50 am.
It will take her 5 minutes to walk from the station to the office.
Which train should she get from Menston?

Needs to arrive at Kirkstall by 8:45am

07:35 is the only train

07:35

[2 Marks]

d) What is the time difference between the quickest and slowest train from Guiseley to Leeds?

07:45 – 08:03 (18 mins)
08:15 – 08:36 (21 mins)

21 – 18 = 3

3 mins

[2 Marks]

Q11. Here is part of bus timetable:

Axbridge	0845	0856	0908
Benton	0900	-	0923
Char	0912	0919	0928
Drayton	0928	0934	0944
Eccles	0942	0950	0958
Fenton	0958	1009	-
Casterbridge	1006	1017	1024
Glen Moore	1017	1029	1033
Havering	1028	1040	1045

a) How long should the 0934 from Drayton take to get to Glen Moore?

09:34 → 10:00 → 10:29

+26 +29 = 55

55 mins

[1 Mark]

b) Simon arrives at Benton at 0910. He gets the next train to Eccles. From Eccles station he walks 15 minutes to work. What time does he arrive at work?

gets 09:23 which arrives in Eccles at 09:58

09:58 → 10:00 → 10:13

+2 +13

10:13

[2 Marks]

c) Roger wants to get to a conference meeting in Casterbridge which starts at 11.00am. It takes him 21 minutes to walk from his house to the train station in Char.
It then takes him 35 minutes to walk from Casterbridge train station to the conference hall.
He sets off from his house at 8.53 am.

Will he make it to the meeting on time?
You must show all your working.

8:53 → 9:00 → 09:14 (WALK)

+7 14

Get 09:19 train arriving in Casterbridge at 10:17

10:17 → 10:52

+35

He arrives on time at 10:52

[3 Marks]