OCR
Oxford Cambridge and RSA

Wednesday 11 January 2023 – Afternoon

Level 3 Cambridge Technical in IT

05838/05839/05840/05841/05842/05877 Unit 2: Global information

INSERT

C386-I-2301

INSTRUCTIONS

- Do **not** send this Insert for marking. Keep it in the centre or recycle it.

INFORMATION

- This Insert contains the pre-release material that you have already seen.
- This document has **4** pages.

© OCR 2023 [R/507/5000]

Organisational profile

PH GP motorbike race team

PH GP is a motorbike race team based in England. Each year the team races at several circuits across the world. The races take place over a weekend, with practice and qualifying sessions being on the Thursday and Friday before the race weekend. The races are held in the same pattern each year.

The races are held consecutively in different regions of the world. A sample of the race calendar is shown below.

Date	Country	Circuit
June	Holland	TT Circuit Assen
June	Germany	Sachsenring
August	UK	Silverstone
October	Thailand	Buriram International Circuit
October	Australia	Phillip Island Grand Prix Circuit

The teams competing come from all over the world. For example, Yamaha are based in Italy whilst LCR Honda are based in Monte Carlo. The riders also come from all over the world. For example, Valentino Rossi is Italian whilst Cal Crutchlow is British.

Each team leaves their base at the start of the race season and does not return until the season ends. Each team is split into four specialist areas:

- mechanical crew
- support crew
- technical crew (trackside)
- transport crew.

Each team also has a second technical crew located at the race team base.

Each motorbike is fitted with sensors which collect data about its performance during the qualifying sessions and races. The data collected from each sensor is automatically uploaded to a secure cloud storage area. This means that the PH GP technical crews can access the results trackside at the race track and at the race team's base. On occasions the data is converted into a graph.

The data can be used by the PH GP technical crew to make adjustments to the performance of the motorbikes. For example, if the fuel sensor data shows not enough fuel is being provided to the engine at a specific speed or engine revolutions, the settings can be adjusted to increase the rate of flow of the fuel. These settings can be changed remotely before or during the qualifying sessions and race by the technical crew at the team base or by the trackside technical crew.

During the race, the PH GP trackside technical team can give team orders to the riders. For example, a team order can be given to a rider to come into the pits to have tyres changed. Riders can also be given orders about the performance of the motorbike which will enable the rider to change their riding strategy. The rider listens to the team orders through a speaker located in their helmet.

Each race team has a website with webpages dedicated to the riders. Riders post blogs and videos to keep fans up to date with developments with the motorbikes, and their performance in the races.

© OCR 2023

The races can be watched by fans all over the world by accessing the circuit website. For example, to watch the Germany race, fans would access the Sachsenring website. The race can be watched live by paying a subscription or free after the race has finished and the results declared. Real-time text commentary is also provided on the circuit website with subscribers able to post comments during the race.

Some motorsport websites post commentaries on the races which fans can access free of charge. However, the commentaries on these websites are not in real time.

Pre-release Research Brief

To prepare for the examination, you should research the following themes:

- How different types of information sources, information formats including the advantages and disadvantages, and data types are currently used by PH GP.
- The different information styles and classifications that are currently used by PH GP including the importance of good-quality information.
- The different types of data analysis tools that are currently used by PH GP.
- The principles of information security and how these can be applied to the information used by PH GP.
- The different logical and physical protection measures which are currently used and could be used by PH GP.

© OCR 2023

Oxford Cambridge and RSA

Copyright Information

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact the Copyright Team, OCR (Oxford Cambridge and RSA Examinations), The Triangle Building, Shaftesbury Road, Cambridge CB2 8EA.

OCR is part of Cambridge University Press & Assessment, which is itself a department of the University of Cambridge.

© OCR 2023