CICS INTERVIEW QUESTIONS

1. How do you place the cursor on a particular position on the screen? 
   Move -1 to the length attribute of the field and use the CURSOR option.

2. Define the field with IC in the BMS map.
   Use CURSOR(n m)?

3. What are the two outputs created as a result of generation of a map?
   The map copybook and the load module.

4. What is the difference between physical map and symbolic map?
   The physical map is the load module and the symbolic map is the data structure.

5. How do you protect a field from being overlaid?
   What is the attribute byte?
   Defines the display/transmission of field. Most cases is an output field from the program.

6. How do you use extended attributes?
   Define EXTATT=YES and the correct terminal type.

7. What are the 3 working storage fields used for every field on the map?
   Length, attribute and input/output field.

8. What is MDT? What are FSET, FRSET?
   Modified Data Tag. Bit in the attribute byte indicating modification of field on screen. Happens on an input operation.
   FSET. Sets MDT on to ensure field is transmitted. Happens on an output operation.
   FRSET. Resets MDT. Until this happens, field continues to be sent.

9. What is the use of DSECT parameter in BMS?
   Is the parameter to generate a symbolic map.

10. Do you receive the attribute byte in the symbolic map?
    On EOF yes.
11. **How do you make your BMS maps case sensitive?**

   Use ASIS???

12. **What is effect on RECEIVE MAP when**

   PF key is pressed? Data transmission may happen,

   PA key is pressed? Data transmission will not happen.

13. **What are SEND MAP MAPONLY & SEND MAP DATAONLY?**

   MAPONLY - to send the map alone, without any data. Eg: used for sending Menu screens.

   DATAONLY - to send data alone, without sending the screen layout again. Eg: used for refreshing the screen data.

14. **What is the difference between a PF key & a PA key?**

   PF keys wake up the task and transmit modified data, PA keys only wake up the task.

15. **Name the macros used to define the following:**

   MAP MAPSET FIELD

   DFHMSD DFHMDI DFHMDF

16. **Can you use OCCURS in a BMS map? If you do, what are the issues related with its use?**

   Yes. cannot use group by clause???

17. **Can you define multiple maps in a BMS mapset?**

   Yes.

18. **How is the storage determined in the symbolic map, if you have multiple maps?**

   Storage for maps redefine the first. This means largest map has to be the first.

19. **What is the meaning of BMS length of field = 0?**

   Data was not entered in the field

20. **Can you simply check if length = 0 for checking if a field was modified?**

    No, not if ERASE EOF was used.

21. **What do you do if you do not want characters entered by the user to be folded to uppercase?**
Use ASIS option on RECEIVE.

22. What does the BUFFER option in RECEIVE mean?

Brings the entire datastream from the terminal buffer.

23. What are the steps you go through to create a BMS executable?

Assemble to create CSECT and Link

24. When you compile a CICS program, the (pre)compiler puts an extra chunk of code. Where does it get included and what is it called? What is its length? -

DFHEIBLK, DFHCOMMAREA.

25. List all the CICS tables and explain their contents.

- PPT SIT
- PCT JCT
- FCT SNT
- DCT SRT
- RCT TCT

26. I have written a CICS program. What tables should I setup to run this program?

PPT, PCT, (FCT, DCT, RCT (if needed)).

27. In which table would you make an entry for a BMS map?

PPT

28. What is the content of the PPT entry?

Length, Source, Use count, Lang, Res count, DFHRPL number

29. For a CICS-DB2 program, how is the plan referenced?

Uses a RCT table.

30. How is dynamic memory allocated within a CICS application program?

Use a GETMAIN

31. What are the restrictions while using GETMAIN and FREEMAIN?

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32. What is the use of a TDQ, TSQ? 

Temporary data stores.

33. How do you read from a TSQ? 

Temp storage read command

34. If I create a TSQ from one transaction, can I read it from another transaction? 

Yes. As long as they run in the same region.

35. What are extra partition & intra partition TDQs? 

Extra partition TDQs are datasets used for communication between CICS and other CICS/Batch regions. Intrapartition TDQs are queues for communication within a region.

36. What is trigger level in the context of TDQs? 

For intrapartition TDQs specify the number of records at which ATI happens. Not applicable for extra partition TDQs.

37. How do you fire a batch job from a CICS txn? 

Define an extrapartition TDQ as an internal reader and write the JCL to it. Terminate the JCL with /*EOF.

38. What is ATI? What kind of TDQ can be used? 

Automatic Task Initiation. Intra partition TDQ.

39. Do you require a table entry for a TSQ? 

If recovery is needed.

40. Is there any entry for TSQs in CICS tables? 

Yes in the DFHTST.

41. What is DCT? 

Destination Control Table used to define TDQs

42. I have TSQ with 15 items. I want to delete the 10th item. How do I do that? 

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43. **Can you issue SQL COMMIT from a CICS program?**

   Yes.

44. **What is the other way of terminating a transaction?**

   EXEC CICS SYNCPOINT. Assuming it is a LUW. This will not end the Xn.

45. **What is an ASRA abend?**

   Any data exception problem SOC7, SOC4 etc.

46. **What is an AEY9 abend?**

   DB2/IDMS not up.

47. **What are the situations under which NEWCOPY is required?**

   When a program has been used in CICS at least once and then changed and recompiled.

48. **What is 2 phase commit?**

   What is EXEC CICS RETRIEVE?

   Used by STARTed tasks to get the parameters passed to them.

49. **Name some important fields in the EIB block?**

   EIBRESP, EIBCALEN, EIBRRCDE, EIBTASK, EIBDATE, EIBTIME

50. **Can you use DYNAMIC calls in CICS?**

   Yes, the called routine must be defined in PPT and the calling program must use CALL identifier..

51. **How do you handle errors in CICS pgms?**

   Check EIBRESP after the call or use the HANDLE condition.

52. **Suppose pgm A passes 30 bytes to pgm B thru commarea and pgm B has defined its DFHCOMMAREA to be 50 bytes. Is there a problem?**

   Yes, if B tries to access bytes 31-50.

53) **When an XCTL is done, does the tranid change? Is a new task created? Does it cause an implicit SYNCPOINT to be issued?**

   No, No, Yes.
54. **How do you execute a background CICS txn?**

   With a START or ATI.

55. **Can a CICS region be attached to more than one DB2 subsystem?**

   ?

56. **What determines the DB2 subsystem to which a particular CICS region is attached?**

   ???

57. **What is the DSNC transaction used for?**

   ???

58. **How do you handle error in a CICS program?**

   Same as 36.

59. **What is the difference between START and XCTL?**

   START is used to start a new task. It is a interval control command. XCTL is used to pass control to a program within the same task. It is a program control command.

60. **What is the usage of language in the PPT entry?**

   Language interface and call parameters???

61. **Can you have CICS code in a copybook? If yes, what happens during compilation?**

   Yes. Needs to be preprocessed.

62. **What is an AICA abend?**

   Runaway Task.

63. **How would you resolve an ASRA abend?**

   In COBOL II start with CEBR, and get the offset/instruction.

64) **I invoke a transaction from CICS. The program has a code: MOVE DFHCOMMAREA TO WS-AREA. What happens to this transaction? What happens to the other transactions?**

   Junk may get moved in. Will cause Storage violation. ?

65. **How do I find the name of the CICS region inside my COBOL program?**

   ???????????????????????????????????
66. When you do a START, what will the value of EIBCALEN?

   Zero.

67. How are VSAM files Read in CICS pgms?

   File Control Commands. Random, Sequential, forward and backward.

68. How will you access a VSAM file using an alternate index?

   Thru the path. Define path as an FCT and use normal File control commands.

69. How do you rollback data written to an ESDS file?

   Define the file as recoverable. In cases where records have been inserted into the file, you may need to run a batch program to logically delete the inserted records.

70. I have done a START BROWSE on a VSAM dataset. Can I do another START BROWSE without doing an END BROWSE?

   No.

71. Can you access QSAM (seq) files from CICS?

   No.

72. Can you access ESDS files from CICS?

   Yes.

73. What is CICS?

   CICS - Customer Information Control System

   CICS is a telecommunications monitor software product from IBM. The IBM mainframe operating systems are batch and time-sharing. CICS supports the development and execution of online applications. It does this by

   - communicating with terminals
   - sending and receiving formatted data
   - accessing files and database

   CICS itself is batch job running on the operating system with high priority. CICS does scheduling of programs that run under the CICS region.

74. What is Pseudo conversitonal mode?
75. What is a Map?