The Aviation Medicine Quiz

Dear Reader

In this issue we bring you questions related to ejection from aircraft. Go through the questions, select the most appropriate response. The correct answers are provided on page number 69.

1. First Indian Air Force pilot to eject in India.
   (a) AVM Parker  (b) FO PK Circar  (c) FO R Bedi  (d) Flt Lt Jamshed Dordi

2. The Parachute Opening Shock (POS) Ranges between _______.
   (a) 8 – 12 G  (b) 15 – 20 G  (c) 20 – 25 G  (d) 18 – 30 G

3. The Ejection Seat fitted in SU-30 MK(I).
   (a) ZVESDA  (b) K-36 MK 2.65  (c) K-36 MK 3.05  (d) ACES-II

4. In a safe ejection envelop the whole ejection sequence to complete takes _______.
   (a) 2.65 Sec  (b) 1.65 Sec  (c) 2.0 Sec  (d) 3.0 Sec

5. In a Dual Ejection System the seat which fires first
   (a) Aft Seat  (b) Fore Seat  (c) BOTH Simultaneously  (d) Simultaneously in opposite direction

6. The ‘q’ Force terminology in ejection – was derived from
   (a) Quick Force  (b) Quantum Force  (c) Quantity of RAM air pressure  (d) None of above

7. Following are the advantages of Rocket Catapult over Cartridge Catapult except
   (a) Lesser Ejection Thrust  (b) Lesser Duration  (c) Lesser Ejection Minima  (d) Lesser Wind Drag Force

8. The First Zero-Zero Ejection Seat was devised during
   (a) 1960  (b) 1952  (c) 1970  (d) 1976

9. Capsule Ejection is fitted in
   (a) F-111  (b) X-B 76  (c) Both  (d) None of above

10. During an ejection, the maximum force per unit area is subjected to the spine at the level of
    (a) L₁  (b) L₅  (c) D₁₂  (d) S₁

11. The G switch in the ejection mechanism gets activated if the aircraft speed exceeds _______.
    (a) 350 knots  (b) 250 knots  (c) 150 knots  (d) 450 knots
12. All of the following variables determine the quantity of POS, experienced during parachute opening except
   (a) Forward Speed of the aircraft
   (b) Altitude of Ejection
   (c) Position and Attitude of the man (Ejectee)
   (d) The harness system

13. Miniature Detonating Cord (MDC) contains ____
   (a) RDX
   (b) HMX
   (c) Both
   (d) RDX-75-F only

14. Following (Post-Ejection) stable spinal fracture the non-flying category awarded to a relatively asymptomatic aircrew is for a duration of about ________
   (a) 03 months
   (b) 06 months
   (c) 12 months
   (d) 06 weeks

15. Air Research and Development Command Manual (ARDCM) which is the basic guide for aircraft design, states that equivalent speed of ________ and above requires an ejection system.
   (a) 200 Knots
   (b) 260 Knots
   (c) 150 Knots
   (d) 100 Knots

16. The minimum force required to pull a Seat-Mounted Ejection handle on an average is
   (a) 45 lbs
   (b) 60 lbs
   (c) 15 lbs
   (d) 90 lbs

17. All of the followings can be within the human tolerance limit of an ejection thrust except.
   (a) 25 G x 0.01 sec
   (b) 30 G x 0.03 sec
   (c) 16 G x 0.02 sec
   (d) 20 G x 0.03 sec

18. In an underwater ejection the escape is possible from a maximum depth of
   (a) 75 ft
   (b) 500 ft
   (c) 100 ft
   (d) 300 ft

19. In a zero-zero ejection seat, the minimum time required for a ballistically deployable parachute to open fully is ________
   (a) 0.8 sec
   (b) 1.2 sec
   (c) 1.5 sec
   (d) 1.65 sec

20. All of the following factors are considered in the design principle of a Barostatic Time Release Unit (BTRU) except
   (a) Altitude
   (b) Attitude
   (c) Acceleration
   (d) Time delay

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