Aviation Medicine Quiz

1. Percentage increase in stature after exposure to microgravity is?
   a. 3%
   b. 5%
   c. 7%
   d. 9%

2. What does MET stand for?
   a. Meteorological Equivalent Time
   b. Mission Elapsed Time
   c. Mars Entry Time
   d. Meridian Equated Time?

3. According to NASA short term space mission are of duration of less than …. days?
   a. 10
   b. 7
   c. 14
   d. 12

4. Which was the first US space craft?
   a. Mercury 1
   b. Vanguard 1
   c. Explorer 1
   d. Discovery 1

5. Percentage of astronauts who suffer from orthostatic intolerance post space flight?
   a. 43%
   b. 53%
   c. 63%
   d. 93%

6. Bungee cords used for restraints in microgravity simulate approximately ……G inside the shuttle?
   a. 0.2-0.3
   b. 0.5-0.7
   c. 0.4-0.6
   d. 0.7-0.8

7. Daily dosage of Midodrine used as a countermeasure of cardiac de conditioning in space flight is
   a. 2mg
   b. 3mg
   c. 5mg
   d. 10mg

8. Amount of extravehicular activity EVA (in hours) required by the International space station (ISS) assembly annually is
   a. 100
   b. 135
   c. 150
   d. 200

9. Nephrolithiasis is a Class … medical risk in space?
   a. I
   b. II
   c. III
10. Which Soviet Space Mission had to be abandoned because of onboard sepsis?
   a. Vozkhod 5
   b. Salyut 12
   c. Salyut 7
   d. Salyut 5

11. In which year was the first case of tetanus treated by HBOT in IAM?
   a. 1966
   b. 1967
   c. 1968
   d. 1969

12. As per DGCA guidelines on Flight Duty Time Limitations (FDTL) (CAR 2007), period of night within a 24 hr day is between
   a. 1800-0500hrs
   b. 2000-0600hrs
   c. 1900-0600hrs
   d. 1900-0500hrs

13. .... % of weight of the vertebral column is contributed by the intra vertebral discs?
   a. 25
   b. 30
   c. 35
   d. 40

14. As per FAA guidelines on flight medical oxygen is mandatory in a commercial aircraft if the baseline PaO2 is less than… mmHg
   a. 70
   b. 75
   c. 80
   d. 90

15. Thrust provided by rocket packs during seat ejection in Hawk aircraft is:-
   a. 4500 lbs
   b. 5500 lbs
   c. 6500 lbs
   d. 7000 lbs

16. Type 29 Silva Huntsman compass is found in the personal survival pack (PSP) of which aircraft?
   a. Mirage 2000
   b. Su-30 MKI
   c. Hawk
   d. Sea Harriers

17. NATO STANAG 3497(I) deals with Aeromedical Training of aircrew in:
   a. NBC Protection
   b. High Altitude Protection
   c. Underwater Escape
   d. Protection during natural calamities

18. Ambulatory blood pressure (BP) monitoring at night time, recordings are made every
   a. 15 min
   b. 30 min
   c. 45 min
   d. 60 min
19. The first woman pilot in the world was
   a. Louise Thaden
   b. Bessie Coleman
   c. Katherine Cheung
   d. Blanche Scott

20. In fatal aircraft accidents, the transaction of Aorta takes place at …:-
   a. 30-40 G
   b. 60-80 G
   c. 80-100 G
   d. 100-120 G

21. According to the classification of accidents used in the Indian Air Force (IAF), a Cat IV accident should incur a civil/service property (other than the cost of the aircraft) damage worth :-
   a. Less than 25 lacs
   b. Less than 30 lacs
   c. Less than 40 lacs
   d. Less than 50 lacs

22. Which Airline was the first to start a structured course in crew resource management (CRM) for its employees?
   a. KLM
   b. British Airways
   c. Air France
   d. United Airlines

23. The tilt angle of the ejection seat in the Swedish Gripen aircraft is …. degrees
   a. 20
   b. 25
   c. 28
   d. 32

24. Minimum amount of G forces required for cervical vertebral injury is
   a. 3G
   b. 4G
   c. 6G
   d. 8G

25. Doubling of sound pressure level from the reference value (20 μPa) increases the dB level by
   a. 3db
   b. 6db
   c. 9db
   d. 12 db

Answers On Page No. 38

Answers to the teaching series:
1. The diagnosis is ‘Otosclerosis.’ It has autosomal dominant inheritance and is 3 times more common in females. Characteristic lesion is in stapes footplate where mature lamellar bone is replaced by woven bone of greater thickness, cellularity and vascularity.

2. Carhart’s Notch. There is dip at 2 KHz in bone conduction in about 35% of affected people which reflects a loss in the inertial component of the stapes footplate. Air conduction threshold does not parallel the Carhart’s notch (only bone conduction is notched).

3. Stapedectomy.